CALIFORNIA

OIL WORLD

SECURITY ENGINEERING CO., INC.

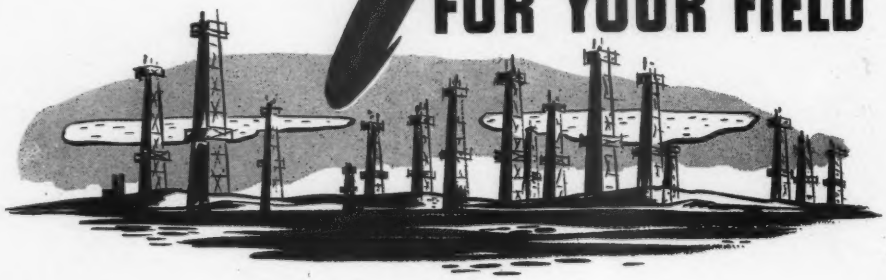
Main Office and Plant WHITTIER, CALIF. • Phone AN 131-53

NEW YORK CITY 420 Lexington Ave. • Phone Lexington 2-4727

WASHINGTON 15 D. C. • Phone Capitol 7-0028

Vol. 25
No. 23
Whole
No. 1622

GET THE CORRECT *Bit Fit* FOR YOUR FIELD

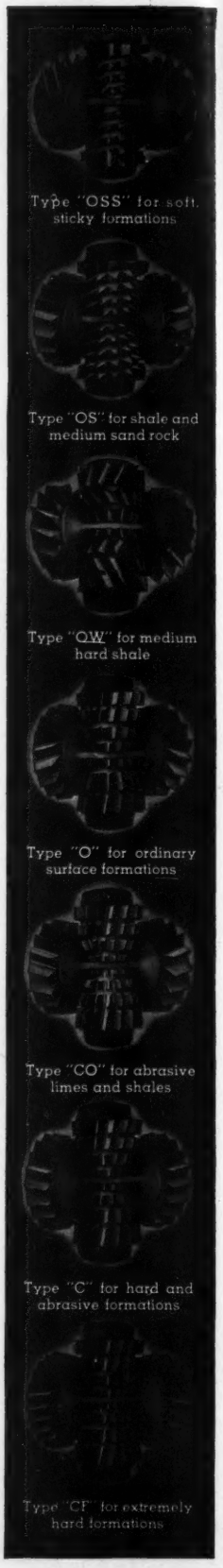


CRUM - BRAINARD Individualized Bit Service provides the exact type of cutter that best meets your own local requirements——insuring you **more** hole, **straighter** hole, **fewer** round trips from every bit you run!*

Guesswork is out when Crum-Brainard engineers tackle your bit problems. Send us a description of the formations in your field and your suggestions as to rock bit characteristics needed to drill them efficiently. Our engineers will be glad to incorporate these suggestions in perfecting a bit for **your specific needs,** or in recommending one or more standard Crum-Brainard types for your conditions.

You get **more hole, straighter** hole with Crum-Brainard's correct BIT FIT!

*In numerous competitive runs all over the world Crum-Brainard Bits, properly selected for local conditions, have out-performed all other types!


Type "OSS" for soft, sticky formations
Type "OS" for shale and medium sand rock
Type "O.W." for medium hard shale
Type "O" for ordinary surface formations
Type "CO" for abrasive limes and shales
Type "C" for hard and abrasive formations
Type "CF" for extremely hard formations

Crum CB Brainard

217 MAGNOLIA AVENUE • WHITTIER, CALIFORNIA

BRANCH WAREHOUSES

PETROLEUM SERVICE CO., SANTA MARIA, CALIF. • VALLEY WAREHOUSE, BAKERSFIELD, CALIF. • B & G SERVICE CO., AVENAL, CALIF.

CALIFORNIA
OIL WORLD
and Petroleum Industry

PUBLISHED TWICE A MONTH — ENGINEERING — TECHNOLOGY — LATEST NEWS

FIRST ISSUE
DECEMBER 1942
VOL. 35 NO. 23
WHOLE NO. 1622

IN THIS ISSUE

In the service of our country

Administrative Highlights..... 5

Drilling Oil Wells Without Water Strings..... 15

Los Angeles Basin Developments..... 23

Coastal District Developments..... 26

San Joaquin Valley Developments..... 28

PETROLEUM PUBLISHERS, INC. 939 SO. BROADWAY BLDG.
LOS ANGELES, CALIFORNIA-MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS

WALTER C. MONROE President and Editor
KINZIE MILLER Vice President

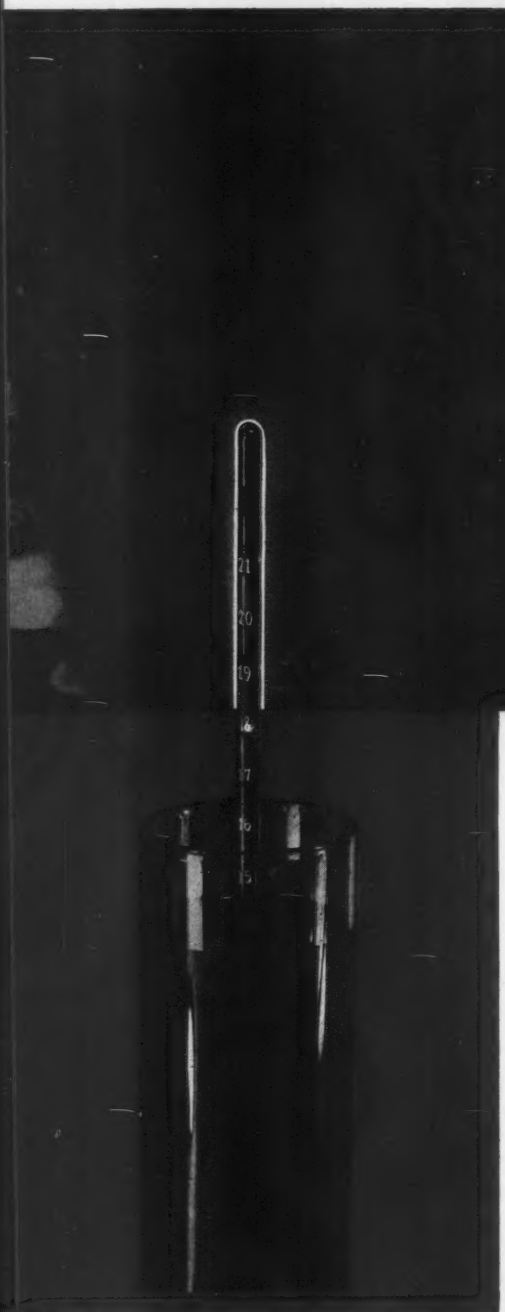
V. W. HEINZERLING, Manager California Oil World News Service and California Oil World Reference Edition

California Oil World and Petroleum Industry is published twice a month at 1009 in the 939 So. Broadway Bldg., Los Angeles, California. Entered as Second-class Matter January 16, 1937, at the post office at Los Angeles, California, under the Act of March 3, 1879. Subscription price $1 per year in U. S. and Possessions, $2 in foreign countries, including Canada. Member of the Audit Bureau of Circulations.

December 11, 1942

Telephone Number TUcker 2571

High Efficiency Dehydration for Low Gravity Crude Emulsions



Heavy crudes, so much in demand these days, often present a difficult treating problem. While the Petreco Electric Process effectively is dehydrating emulsions involving crudes over a wide gravity range, it always has been highly successful in treating low gravity crude oil emulsions.

Petreco engineers can point out many examples of Petreco performance on 12° to 22° API gravity oils. In some cases Petreco Electric treating has resulted in volume savings as high as 2% and 3%. Petreco's vapor-tight flow system allows the use of back-pressures to accelerate settling and prevents gassing and foaming. The Petreco Dehydrator is the only settling space required, conserving tankage. If you are a producer of heavy oil, check into Petreco Electric Dehydrating now . . . you'll find it worth-while.

PETROLEUM RECTIFYING COMPANY OF CALIFORNIA
530 West Sixth Street, Los Angeles, California • 5121 South Wayside Drive, Houston, Texas
Edison Building, Toledo, Ohio

PETRECO
DEHYDRATING DESALTING

Administrative Highlights •

Petroleum Administration For War

Text of the Executive Order Establishing the Petroleum Administration for War and Defining its Functions and Duties

By virtue of the authority vested in me by the constitution and statutes, as President of the United States and Commander in Chief of the Army and Navy, and in order to coordinate and centralize the war policies and actions of the government relating to petroleum with a view toward providing adequate supplies of petroleum for the successful prosecution of the war and for other essential purposes, it is hereby ordered as follows:

1. Whenever used in this order:

A. The term "petroleum" means petroleum, petroleum products, and associated hydrocarbons, including but not limited to natural gas, except that natural gas which has entered into gas transmission lines from field gathering lines shall not be so included.

B. The term "petroleum industry" means the production, refining, treating, storage, shipment, receipt, or distribution within the United States, its territories and possessions, of petroleum, exclusive of: (1) the transportation of petroleum, (2) the transmission of natural gas from the point of its entry into gas transmission lines from field gathering lines, and (3) the distribution of natural gas.

C. The term "transportation" means transportation as defined in U. S. Code, Title 49, Section 1 (3). (A), and in Executive Orders No. 8989 and No. 9156.

2. There is established a Petroleum Administration for War, at the head of which shall be a Petroleum Administrator who shall be directly responsible to the President. The Secretary of the Interior shall serve ex-officio as Petroleum Administrator hereinafter referred to as the Administrator.

3. The Administrator shall:

A. Subject to the provisions of this order, establish basic policies and formulate plans and programs to assure for the prosecution of the war the conservation and most effective development and utilization of petroleum in the United States and its territories and possessions, issue necessary policy and operating directives to parties engaged in the petroleum industry, and appoint such general, regional, local, or functional petroleum industry committees or councils as the Administrator finds necessary: Provided, that no directive issued hereunder shall conflict with any directive which may be issued b ythe chairman of the War Production Board pursuant to paragraph 1 of Executive Order No. 9125 of April 7, 1942.

B. Serve, as far as practicable, as the liaison and channel of communication between the units of the petroleum industry and the several departments and agencies of the Federal Government on matters directly involving the functions and duties of the Administrator.

C. (1) Obtain from the Departments of War and the Navy, the Office of Lend-Lease Administration, the Department of State and the Board of Economic Warfare, the several divisions and branches of the War Production Board, and such other Federal Departments and agencies as may be appropriate, estimates of the amounts of petroleum which will be required from the United States, its territories and possessions, to meet direct and indirect military, and essential industrial and civilian, requirements; and compile and analyze such estimates and submit them to the War Production Board with recommendations for the allocation of petroleum to meet such requirements.

(2) Prepare and recommend to the War Production Board estimates of the quantities and kinds of material needed by the petroleum industry to produce, refine, store, distribute (excluding transportation), or otherwise make available the amount of petroleum recommended by the Administrator for allocation by the War Production Board.

D. Subject to the direction of the Chairman of the War Production Board, exercise the powers, authority, and the discretion conferred upon the chairman by paragraph 1 of Executive Order No. 9125 of April 7, 1942, by issuing, and taking appropriate action to enforce, such orders or directives to the petroleum industry as the Administrator may deem necessary, in order to:

(1) provide adequate supplies of petroleum.

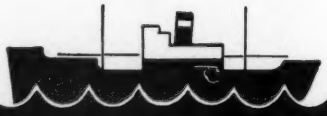
THE WILDCATS OF THE CALIFORNIA OIL & GAS ASSOCIATION

ARE SPONSORING A

BENEFIT BANQUET

for

DECEMBER 16th, 1942
BILTMORE BOWL



THE MEN OF THE MERCHANT MARINE

HENRY J. KAISER
Master Shipbuilder speaking on
"THEY COVER EVERY BATTLEFRONT"
9.30 - 10:00 Over C. B. S. National Hookup from
the Biltmore Bowl

Entertainment

"RED" SKELTON ★ CHESTER MORRIS
VIRGINIA O BRIEN ★ DICK LANE
SUZANNA FOSTER ★ GRACE MacDONALD

DINNER BILTMORE BOWL 6:30 P. M.
TEN DOLLARS THE PLATE

ENTIRE NET PROCEEDS TO GO TO THE MEN OF THE MERCHANT MARINE THROUGH THEIR ORGANIZATION UNITED SEAMEN'S SERVICE, INC.

All talent furnished through the Courtesy of the
Hollywood Victory Committee — and Theatre Authority, Inc.

(2) effect the proper distribution of such amounts of materials as the Chairman of the War Production Board may allot for the use of the petroleum industry.

E. Compile data and make continuing surveys with respect to the effect of the prices charged for petroleum upon the efficient war-time operations of the petroleum industry and the maintenance of adequate supplies of petroleum for war and essential industrial and civilian uses. On the basis of such surveys, the Petroleum Administrator shall consult with and recommend to the Administrator Office of Price Administration, such upward or downward adjustments in the schedule of prices charged for petroleum as will, in the judgment of the Petroleum Administrator, assure the efficient wartime operation of the petroleum industry and the maintenance of adequate supplies of petroleum for war, and essential industrial and civilian uses. In order to enable the Petroleum Administrator to make appropriate recommendations, the Price Administrator shall advise with the Petroleum Administrator prior to the establishement or alteration by the Price Administrator of any schedule of prices to be charged for petroleum.

F. Be advised of all plans or proposals which deal with the civilian rationing of petroleum and consult with rationing authorities in the development of such plans or proposals; and, in those instances where rationing is for the purpose of maintaining adequate supplies of petroleum for war and essential industrial and civilian requirements, determine, after advising with the War Production Board, the areas and the times within which such rationing should be effective and the amount of petroleum available for such purpose.

G Consult with the War Shipping Administration with respect to the assignment of tankers and the movement of petroleum, and, subject to the requirements of the Departments of War and the Navy, recommend allocations as between units of the petroleum industry of available tankers under the control of the War Shipping Administration.

H. Designate the quantity and kind of petroleum to be shipped and received by those engaged in the petroleum industry, and certify such designations to the Office of Defense Transportation for appropriate action in providing the necessary transportation.

I. Review all plans or proposals for the construction, extension, enlargement or inter-connection of petroleum pipelines; subject to the over-all responsibilities of the Office of Defense Transportation, approve such plans or proposals as are, in his judgment, necessary to provide adequate supplies of petroleum for war and other essential uses and recommend to the War Production Board programs covering the amounts and kinds of materials needed for such pipelines. The Administrator shall direct the physical operation of petroleum pipelines to the extent of prescribing the quantity and kind of petroleum to be transported by and the direction of flow through such pipelines: Provided, that nothing herein shall be deemed to limit the functions and authority of the Office of Defense Transportation under Executive Order No. 8989 of December 18, 1941, with respect to the provision of necessary additional transportation facilities and equipment, or to coordinate and direct domestic traffic movements.

J. Advise the several Federal departments and agencies concerned with the construction, enlargement, or additional interconnection of any natural gas transmission line as to the supply and availability of natural gas at the proposed sources of production whenever such construction, enlargement, or interconnection will result in substantially altering the rate of production at such sources.

K. Perform the duties and responsibilities with relation to petroleum and the facilities used in the petroleum industry imposed by Executive Order No. 9165 of May 19, 1942, upon the Department of the Interior.

L. Certify to the various State regulatory bodies having jurisdiction with respect to the production of petroleum, the amounts and kinds of petroleum which should be produced in their respective states, and collaborate with such State regulatory bodies in the coorindation of their activities with the programs and policies of the Administrator.

M. Keep the President informed with respect to the progress made in carrying out this Order and perform such related duties as the President may from time to time assign or delegate to him.

4. The Administrator shall collaborate with the appropriate Federal departments and agencies authorized to determine plans and policies with respect to foreign petroleum activities. The Administrator shall, in conformity with such plans and policies, issue Directives concerning the physical operations of their foreign petroleum facilities to units of the American petroleum industry which directly or indirectly engage in such operations in foreign countries. The Administrator shall be the channel of communication on foreign petroleum matters between the Federal Departments and agencies and such units of the American petroleum industry.

5. The Administrator shall perform the functions with respect to rubber conferred upon the Office of Petroleum Coordinator for War by Executive Order No. 9246 of September 17, 1942, subject to such directives as the Rubber Director may issue pursuant to such Order. Nothing in this order shall apply to or in any way limit the functions and

authority, or the manner of executing the same, of the Chairman of the War Production Board or the Rubber Director in the exercise of control over and administration of the nation's rubber program pursuant to said Executive Order No. 9246, or the functions and authority of any department, establishment or agency in the execution of such aspects of the rubber program in such manner and for such period of time as the Rubber Director may direct pursuant to said Executive Order.

6. Subject to such restrictions as may be imposed by the Departments of War and the Navy with respect to their own requirements, the several Federal departments and agencies shall supply such information and data as the Administrator may require in performing his functions and shall advise with the Administrator before undertaking any action which might affect the continuous, ready availability of petroleum for military and essential industrial and civilian needs. In order to assist him in carrying out the purposes of this Order, and the Administrator may establish or designate committees or groups of advisors, representing two or more departments or agencies of the Federal Government, or States. The Administrator shall meet at regular and special intervals with representatives of the various Federal departments and agencies having continuing functions directly related to petroleum or the petroleum industry.

7. The Administrator may appoint, with the approval of the President, a Deputy Administrator, who shall report directly to the Administrator, and to whom he may delegate any and all power, authority, and discretion conferred upon him by this Order. The Deputy Administrator shall serve as Acting Administrator in the absence of the Administrator. The Administrator, within the limits of such funds as may be allocated or appropriated for the purpose, may employ necessary personnel and make provision for necessary supplies, facilities, travel, and services.

8. The Office of the Petroleum Coordinator for National Defense, later changed to the Office of Petroleum Coordinator for War, established by the letter of the President dated May 28, 1941, is abolished, and its personnel, records, property, and funds are transferred to the Petroleum Administration for War, effective fifteen days from the date of this Order. All Orders, Directives, Agreements, Recommendations, and other documents issued or entered into under the functions, duties, and authorities of the Petroleum Coordinator for war shall remain in force as the responsibility of the Administrator until such time as he may revoke, alter, or otherwise change such documents under provisions of this Executive Order.

9. Nothing in this Order shall be deemed to limit in any way the authority of the Departments of War and Navy to initiate or carry out directly, without review or approval by the Administrator, any action relating to petroleum or the petroleum industry which either department deems to be a matter of military necessity or expediency and which arises in such areas and is of such military urgency as to require special or secret disposition; or to limit in any way the functions and authority of the Secretary of State, under the direction of the President, in the formation of the foreign policy and the conduct of the foreign relations of this Government; or to limit in any way the statutory powers of the Interstate Commerce Commission with respect to rates, charges, statistics, accounts, car service (including emergency service powers) or operating authority; or to limit in any way the exercise of the authority of the Federal Power Commission or the performance of its functions and authority under the Natural Gas Act (52 Stat. 821) as amended; or limit the functions and authority of the Board of Economic Warfare under the Act of June 30, 1942 (54 Stat. 463); or to limit in any way the powers of the Price Administrator under the Emergency Price Control Act (56 Stat. 23) and as amended by Public Law 729—77th Congress, Second Session.

10. Any provisions of pertinent executive Orders in conflict with the provisions of this Order are hereby superseded. Provided, that nothing herein shall be deemed in any way to limit the functions and authority of the Chairman of the War Production Board under Executive Orders No. 9024 of January 16, 1942, No. 9040 of January 24, 1942, No. 9125 of April 7, 1942, and No. 9246 of September 17, 1942; or to limit in any way the functions and authority of the Federal Power Commission under Executive Order No. 8202 of July 13, 1939; or to limit in any way the functions, duties, or authority of the War Shipping Administration with respect to the operation, control, purchase, requisition, charter, repair, use, or insurance of any vessel or cargo; or to limit the functions and authority of the Board of Economic Warfare under Executive Orders No. 8839 of July 30, 1941, as amended, No. 8900 of September 15, 1941, No. 8926 of October 28, 1941, No. 8942 of November 19, 1941, and No. 9128 of April 13, 1942; or to limit the functions and authority of the Office of Lend-Lease Administration under Executive Order No. 8926 of October 28, 1941.

FRANKLIN D. ROOSEVELT.
The White House,
December 2, 1942.

Appointment Approved

"The appointment of Secretary of the Interior Harold L. Ickes, to the newly created office of Petroleum Administrator for War, with authority enlarged over that he had as Petroleum Coordinator, meets with the hearty approval of the rank and file of the oil industry," according to Lawrence Vander Leck, president of Oil Producers Agency of California.

"Mr. Ickes has had constant contact with the oil industry for the past ten years, and has become intimately familiar with its war problems during his service as Petroleum Coordinator for War. Since the war has made it necessary to grant more power to a centralized authority over the oil industry's operations, it is our belief that President Roosevelt could not have made a better selection.

"It is necessary for the oil industry to exert every effort to supply the needs of the army and navy and war industry. Under Mr. Ickes' administration as petroleum coordinator, much progress has been made, and the industry is confident that under his administration in his new office, with the necessary authority having been delegated to him, much further progress can be made."

Gasoline Splurge Over

The final splurge of gasoline buying is complete.

Estimates have been made that as much gasoline was sold on the Pacific Coast during the last day or two before rationing went into effect as is normally sold in a week, but there is as yet no accurate gauge on the actual effect of rationing on the industry.

There have been etimates that, on the Pacific Coast, more than 30,000,000 gallons were sold during the last two or three days, and marketing companies were highly pleased with the orderly manner in which this tremendous volume was distributed. In the east, prior to rationing, there were many reported instances of "sold out" signs on service stations, but on this coast, no such condition occurred. It is thought that one of the reasons for the industry's ability to fill all customers' wants was that there were several rumors to the effect that sales were suddenly going to be frozen, hence motorists kept their cars full all during the last week prior to rationing, so that they would not get caught short no matter what the last day of sales might have been.

Last day sales were in small amounts, in many cases, and were the motorists' effort to squeeze in that last gallon or two on his way home after his last unhindered trip in his car.

Sales Off

Volume of gasoline sales had already tapered off considerably from the records of preceding years, hence what further effect rationing will have is somewhat difficult to estimate, although such estimates range from a drop of an additional 20% to one of 50%.

Reflecting the curtailment of driving already in effect taxable gasoline sales totals for October resulted in a drop of 15.7% in tax income compared with the corresponding month of a year ago. During October, 1942, the state assessed a gasoline tax of $4,660,468.64, compared with $5,527,752.88 for the same month in 1941, and for the first 10 months of 1942, taxes totaled $48,130,880.79, compared with $54,839,232.87 for the same period of 1941. Drop in the 10-month collections was approximately 9%.

It will be interesting to compare November, 1942, figures with those for November, 1941, since November was the last month in which the motorist could purchase all the gasoline he wanted, and particularly since it was the last month that he could prepare himself against rationing by keeping his tank full. December figures, compared with December, 1941, will give the first direct comparison between rationed and non-rationed gasoline sales.

Ickes' Authority

In connection with gasoline rationing, and Oil Administrator Ickes' powers under the executive order which establishes the Petroleum Administration for War to supersede the Office of Petroleum Coordinator for War, there apparently will be no change in the administration of rationing on the Pacific Coast. Administrator Icke's authority over rationing of petroleum products is confined to those areas in which there is an actual shortage of petroleum products, but expressly does not include rationing authority where the rationing is established for the purpose of conserving rubber.

However, with a statement by W. L. Stewart, chairman of the District No. 5 Refining Committee, several weeks ago that if gasoline rationing had not been instituted to save rubber, it would have been necessary to establish it to save gasoline, there may be a dual authority in California and on the Pacific Coast. But in either event, it is understood that the Office of Price Administration will handle details of the program, which should tend to eliminate confusion in those areas in which there is gasoline rationing because of shortages of gasoline as well as gasoline rationing because of the rubber shortage.

Truck Rations

Temporary gasoline rations for trucks, whose owners have not yet received Certificates of War Necessity, have been made available by the Office of Price Administration.

Issuance of Certificates of War Necessity, originally scheduled for completion by November 15 and later postponed to December 1, is still not complete. The Office of Defense Transportation, by whom the certificates are issued, has been unable to complete the job, with the result that all trucks would have been immobilized had the temporary arrangement not been worked out.

These temporary rations will, however, be subtracted from the total finally authorized by the particular Certificate of War Necessity, when it is issued for the individual truck. The "T" ration is to cover the period to the end of December, by which time it is presumed that the Certificate of War Necessity will have been issued.

Inspection Postponed

Another postponement affecting owners and operators of trucks has also been made.

The period for inspection of tires, to have been completed by November 15, has been extended to January 15. This first tire inspection is mandatory, as are subsequent inspections provided for by the Certificate.

Recent regulations as to the turning in of excess tires have also been clarified. The original understanding, that passenger-type tires which were interchangeable for use on pick-up and light delivery trucks could be retained by the owners if they were certified as for use on trucks, has been changed so that all passenger-type tires in excess of five per vehicle must be turned in, according to a joint announcement by the ODT and the OPA.

Pipe Redistribution

Just as soon as the recently-distributed inventory blanks, number-

ing approximately 10,000, are returned to the now Petroleum War Administration by oil producers to whom they were sent, redistribution of oil country tubular goods will start, according to a recent announcement by R. K. Davies, whose new title is Deputy Petroleum Administrator for War.

Mr. Davies explains the need for the nationwide inventory by saying that "There is so great a demand for raw materials by all industries that it is absolutely essential that the oil industry use the materials it requires with maximum efficiency.

"The nation's supply of oil country tubular goods must be used sparingly and only for essential, authorized programs. Thus, it is necessary that idle or surplus stocks be made available to all operators, and, at the same time, that the materials be distributed only for approved operations.

"The present inventory will make it possible to utilize the oil country tubular goods for the most effective purposes."

Stocks Can Be Seized

The announcement further says that "any unusually large inventories held by the oil industry can be requisitioned by the WPB Materials Redistribution Branch for use in the manufacture of essential war products by other industries."

Under the program, when the report is filed, an operator having idle or surplus equipment will be assigned a serial number. An operator who has filed his report will be entitled to purchase his requirements of oil country tubular goods for an authorized work program from the idle or surplus inventories owned by other operators.

If an operator fails to file the inventory report, he will be denied authority to acquire or use any materials for oil or gas production, according to the statement.

Oil Hearing

Sitting for the first time since the resignation of its former chairman, former Congressman Wm. P. Cole, Jr., who resigned to accept a presidential appointment to the Federal bench, the Oil Subcommittee of the House Interstate and Foreign Commerce Committee heard gasoline rationing, the rumored subsidy program of OPA for the stimulation of drilling, and the crude price structure all vigorously attacked by various witnesses. It also received a report on the rubber situation of the country, from L. D. Tompkins, assistant deputy administrator of the rubber administration.

One of the first witnesses, Alfred Jacobsen of Amerada Petroleum, opposed a subsidy for wildcatting, urging instead that the government remove the fear of producers that they are to be deprived of the depletion allowance and the right to charge intangible development cost to expense. He suggested that other incentives to increased drilling include making material and equipment adequately available and taking measures to keep skilled labor in the drilling and production branches of the industry at their present jobs.

Ways to Add Oil

He mentioned three possibilities by which the industry could make an additional 1,000,000 barrels per day available: Build pipelines to West Texas and New Mexico and such other areas as could increase their production without jeopardizing ultimate recovery; relax the 40-acre drilling restriction in M-68 in fields whose characteristics made it feasible and efficient to drill them on a closer spacing pattern; wildcat in possible but unproven areas, such as in Nebraska and North and South Dakota.

He listed four reasons for increases in crude prices: higher replacement cost for present reserves; prolongation of life, hence ultimate recovery, from stripper wells; inauguration of secondary recovery programs in depleted fields; encouraging drilling in marginal areas where present prices do not warrant the necessary expenditure.

Price Raise Urged

H. B. Fell, executive vice president of the Independent Petroleum Association of America also urged higher prices for crude to assure adequate supplies for the war. He likewise opposed a subsidy, saying that the abandonment of wells throughout the nation was on the increase, and that higher prices were necessary to reverse this trend.

Comparing crude prices in the last war with those prevailing today, Mr. Fell predicted that the holding down of prices now would result in a sharp reaction after the war, sending prices to much higher levels than they otherwise would reach.

Other witnesses who urged higher prices for crude were Howard P. Holmes, Dallas; J. P. Coleman, Wichita Falls, Tex.; and Donald Oak, Tulsa.

R. K. Davies also opposed a subsidy to encourage wildcatting, but said that the Office of Petroleum Coordinator (now the Petroleum War Administration) had not fully reached final conclusions on the question of higher prices. His testimony included statements that:

Davies' Testimony

"Uninformed and untrained" approach to oil industry problems can lead only to "disastrous consequences." (This remark was apparently occasioned by a recent statement by an unnamed official of WPB that the OPC should have been more farsighted about oil industry problems);

Demand for any single product in this war is exceeding the sum total of all demands for petroleum in the last war;

Oil field technicians will be most useful in their present jobs, but there must be some way to enforce this policy;

With plenty of materials, there would be no fear that oil supplies would be a limiting factor in the expansion of war activities; with insufficient supplies of material, oil supplies may be a limiting factor;

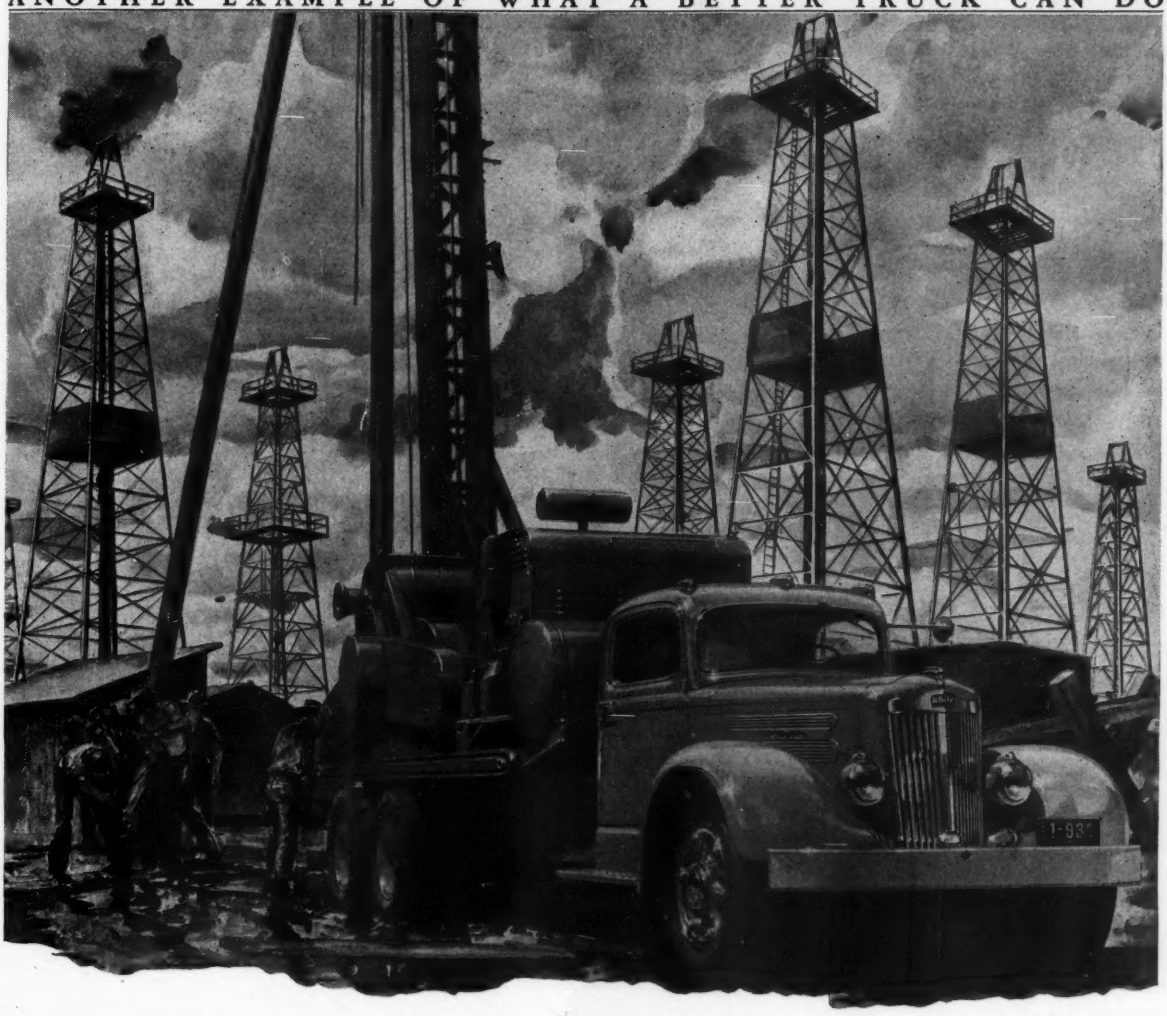
Thus far, military demands have been met, but only with difficulty as to some products;

An increase in crude prices would inevitably be passed on to consumers.

Rationing Opposed

Both Representative Sumners, of Texas, and Representative Anderson, of New Mexico, appeared before the committee to protest gaso-

ANOTHER EXAMPLE OF WHAT A BETTER TRUCK CAN DO



Oil for the Engines of Victory

In no phase of the war effort are motor trucks more vital than in the production and distribution of petroleum and its products . . . life blood of the engines of Victory.

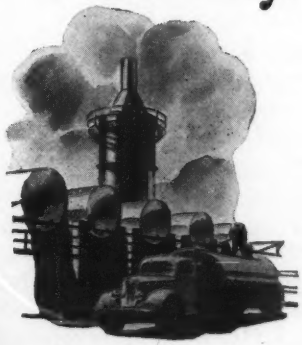
In the typical oil field, trucks work axle-deep in mud and mire. Forty years ago, White trucks were the first motorized equipment to prove successful on the job. Today's Whites actually received their name . . . "Super Power" . . . from the oil field men of the Southwest.

In furnishing the vital link of *distribution*, too, White trucks are performing an equally important service . . . supplying air fields, naval bases, army camps and helping to relieve shortages in certain areas. Time . . . and dependability . . . are the essence of their wartime jobs.

To conserve the nation's truck supply, as well as to protect yourself against the future, investigate now the White Cooperative Plan of Truck Conservation—a definite method of prolonging truck life and conserving critical materials.

THE WHITE MOTOR COMPANY, Cleveland

Builders of U. S. Army Scout Cars, Half Tracs, Prime Movers and Cargo Trucks, the complete line of Super Power Trucks and Tractors, City and Inter-City Coaches, Safety School Busses and the Famous *White Horse.*



White

The petroleum industry is a good example of one which motor transportation serves in many vital ways. Production *depends on trucks and so to a large extent, does* distribution.

FOR MORE THAN 40 YEARS THE GREATEST NAME IN TRUCKS

line rationing. Mr. Sumners said that the people should be given an opportunity to conserve tires and gasoline voluntarily, and if such voluntary conservation failed, the program then could be made compulsory. In a general attack on bureaucracy, Mr. Sumners said that the addition of bureaus only used up the taxpayers' money and absorbed manpower greatly needed in the war effort.

Mr. Anderson complained that the gasoline rationing program had first been announced as necessary to save gasoline, but that now it was a rubber-saving device. He said that these different stated objectives had led to confusion in the public mind, and urged a postponement until the whole problem could be studied and presented to the people in its true light.

Jeffers Testifies

Rubber Administrator Jeffers also testified before the committee, admitting that there was "tremendous" opposition to gasoline rationing. He said that the reason for the protests was that people didn't understand that it was a rubber-saving measure, rather than gasoline-saving, and said that the objective of the program was to keep as many cars and trucks on the highway as possible.

He cited the fact that 80% of the transportation of the country was on rubber-tired vehicles, which percentage made it absolutely necessary to establish a method of keeping motor-vehicles on the road.

Rubber Situation

One of his assistants, L. D. Tompkins, summed up the country's rubber situation as follows:

U. S. crude rubber stocks, 465,323 tons; United Nations stocks, 670,000 tons; imports, 2,000 tons; scrap rubber collected, 587,000 tons; new tires in stock, 6,000,000; tires turned in with the advent of gasoline rationing, 5,000,000; monthly consumption of crude rubber, 30,000 tons; monthly production of synthetic rubber, 1,500 tons.

On the subject of synthetic rubber, Deputy Administrator Dewey testified that five Houdry butadiene projects are being considered, and that by the end of 1943, synthetic rubber production capacity would be 800,000 tons annually. He said that during 1943, 300,000 tons would be made, 250,000 of it in the last half of the year.

Tubeless Tire

The McGay tubeless tire was demonstrated before the committee by its inventor, who reported on various tests that are now being made to determine its practicability. The method uses a regular tire without a tube, the only change necessary being to install a truck valve in the valve opening in the rim. The Petroleum Industry War Council saw a demonstration of the method at its last meeting, and is arranging for tests in each of the five oil districts into which the nation is divided.

Other testimony before the committee was a description of the transportation difficulties on the Atlantic seaboard, and the progress of the conversion of oil heaters to coal heaters in the industrial east. Representatives of the OPC testified on both these subjects.

Royalty Bill Passed

Senator O'Mahoney's bill to lower royalties on public lands to a flat 12½% has been passed by the Senate and is now before the House.

Purpose of the bill is to encourage wildcatting on the public lands, providing for the flat royalty for a period of 10 years, and for a royalty of 7½% for 40-acre parcels where deeper sands might be found under known producing areas.

Under present law, government royalties range from 12½% to 32%, depending on the amount of production, for 20-year periods.

Playa del Rey Condemned

The Playa del Rey oil field has been condemned by the Federal government as a storage reservoir for natural gas. The RFC has filed a condemnation suit giving it title to approximately 750 acres, and has deposited a check for $740,000 to cover payment for the land, including subsurface improvements.

Plans are to use the field as a storage reservoir for both natural and manufactured gas. Oil will be taken from the formations as fast as possible, and pipelines will connect the area with other gas producing districts.

Variance Extended

A thirty-day extension of the oil industry's temporary variance from dim-out regulations has been granted by the Office of Civilian Defense. Originally scheduled to expire at midnight November 25, the variance has been extended to midnight December 25.

The original variance was granted the oil industry for producing and drilling operations in order to assure uninterrupted production, thus maintaining adequate supplies of oil for military and civilian use. Later, other variances were granted pipe line and natural gasoline operations.

Terms of the variance were worked out by the Oil Industry Protection Committee in collaboration with Frank A. Hansen, lighting consultant for the Office of Civilian Defense. At the present time, a comprehensive plan for oil industry lighting is being formulated, with the expectation that when it is complete, it will serve as the basis for a permanent variation from the current dim-out regulations for all necessary operations.

In order to estimate California's oil producing capacity in the coming year, the Conservation Committee of California Oil Producers at its November meeting took the first step toward determining the amount of drilling that could be done in the period, and the resulting new production, by authorizing its chairman, R. P. Huggins, to appoint a committee of five to prepare a survey of the situation.

Military importance of accurate information as to the state's oil producing capacity is emphasized by the practical certainty that California will continue to be the principal source of oil supply for the war in the Pacific.

Data to be accumulated in the survey will probably include: Number of wells that could be drilled, their location, and the producing

zone in which they should be completed; amount of material needed to drill such wells; an estimate of production, both initial production and sustained; the effect of manpower shortages upon the industry's ability to drill the number of wells indicated.

Results of such a survey would indicate the amount of new production that might be developed during the coming year, which, when added to the estimated amount of production from wells already producing, would give an indication of the total production of the state.

In connection with the state's productive capacity, members of the committee were urged to impress upon each operator in their respective producing districts the necessity of increasing his production to the full amount of the increased allotment for December. The December figure, 771,100 barrels per day, is 33,000 barrels per day higher than the November allotment and, according to comment at the committee meeting, the Office of Petroleum Coordinator in Washington is very desirous that the state reach the level of production allocated.

The Committee also plans to survey the manpower situation in the oil industry, with the object of getting accurate information as to the actual number of barrels of current production lost because of lack of sufficient labor. Manpower losses in the oilfields, which have resulted in increased shut-down time of producing wells because of the operator's inability to secure repair crews, can be determined in terms of barrels of current production lost, in the view of the committee. Such loss of production due to lack of men will serve as an accurate gauge of the effect on the war program of drafting of necessary and experienced oil field employees, and the industry will then be in a position to petition the proper governmental agencies for relief.

Davies To Speak

R. K. Davies, Deputy Petroleum Administrator for War, is scheduled to speak at an industry-wide meeting of California oil operators beginning at 10:00 A.M., December 16, at the Biltmore Hotel, Los Angeles.

The meeting will be an open forum on war problems of the production branch of the oil industry, with an opportunity given those in attendance to question the various speakers. In addition to Mr. Davies, Don R. Knowlton, Director of Production of the Petroleum War Administration, will also be present, as will a number of local oil men who are active in various phases of the oil industry war effort.

The meeting is being held on the same day as the Wildcat Banquet so that all operators who plan to attend the latter can also attend the meeting. The Wildcat Banquet is scheduled to begin at 6:00 P.M., by which time the industry meeting will have been completed.

While the subject of Mr. Davies' talk has not yet been announced, as Deputy Petroleum Administrator he is in position to give California operators an over-all picture of the nation's petroleum industry in its relation to the war effort. It will be Mr. Davies' first appearance before California operators since the beginning of the war, his last public trip here being to speak at the American Petroleum convention in San Francisco in November of 1941, just prior to the outbreak of actual shooting involving the United States.

Mr. Davies will also be able to explain the extent of the new authority of the Office of Petroleum Administration for War, which supersedes the Office of Petroleum Coordinator under an executive order which is to become affective on December 17.

Knowlton To Appear

Although it is expected that Mr. Davies' remarks will be pointed toward the national picture, he will be able to speak on purely California problems with a great deal of authority, having been a vice president of Standard Oil Company of California prior to becoming Deputy Administrator.

Mr. Knowlton's subject has not yet been announced, either, but as Director of Production, he is intimately familiar with materials and production problems. In his last public appearance in California, at a similar meeting held early in the year, Mr. Knowlton outlined the materials situation then facing the oil industry and forecast the course of drilling during the current year. He has since had considerable experience with California problems, since his department reviews and approves the monthly allocation schedules for California prepared by the District No. 5 Production Committee.

Local Problems

Several discussions of current problems of the California oil industry are also scheduled, to be led by local oil men active in committee work having to do with their solution. Among these are the new program for joint use of facilities in the production branch of the industry, the conservation of natural gas, the results of a recent survey made to determine the amount of equipment in the hands of the industry, and the over-all committee organization responsible for the allocation of production in the state.

BUY

DEFENSE

BONDS

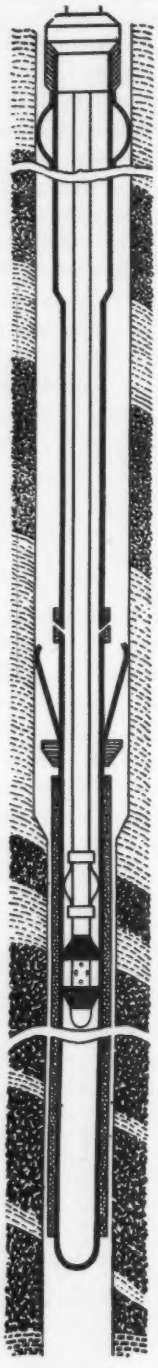


FIG. 1

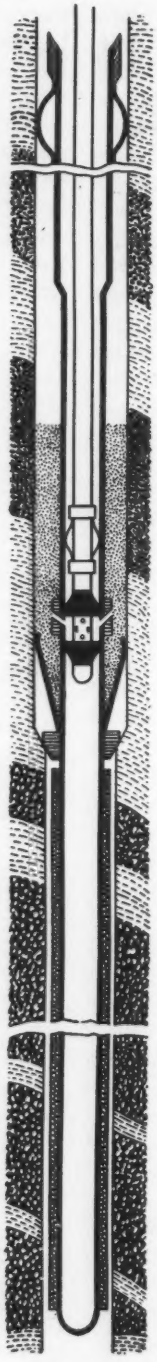


FIG. 2

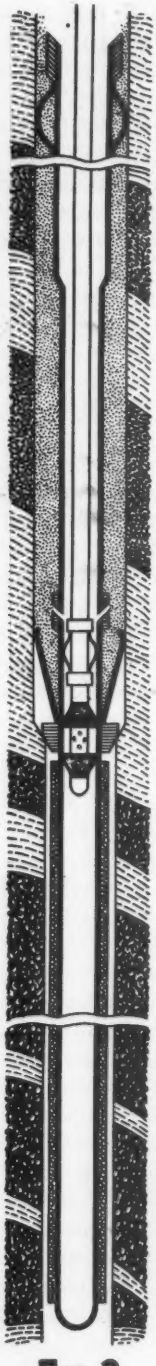


FIG. 3

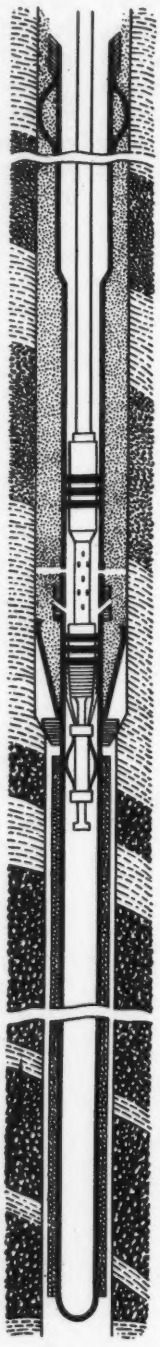


FIG. 4

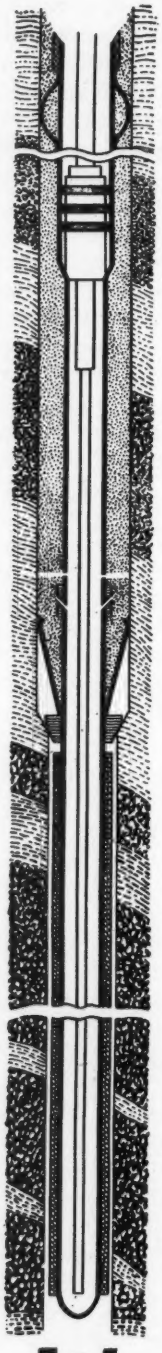


FIG. 5

PROCEDURE FOR DRILLING OIL WELLS WITHOUT WATER STRINGS

ROBERT V. NEW
Los Angeles, California.

APPROVED Robert V. New

APPROVED E. L. Erwin
ENGINEER

APPROVED W. L. McGee
SUPERINTENDENT.

September 15, 1942.

Drilling Oil Wells Without Water Strings

A year and a half ago when wells were being drilled by Continental Development Corporation in the Wilmington Field, Bob New, the president of that company, decided that it would not be long until the war situation would force them to use only a fraction of the steel in drilling oil wells to which they had been accustomed, and was quoted in substance as saying: "When that time comes, someone is going to teach us to drill wells upside down with the big part at the bottom and the little part at the top."

Mr. New points out that California has been facing oil supply trouble ever since Pearl Harbor. That ever since the East Indies fell into the hands of the Japs, California faces the necessity of supplying its own industrial demands for fuel, oil, of supplying the Army and the Navy, and of supplying the needs of the United Nations throughout the Pacific. As a result, California has been drawing heavily and deeply on the residual fuel oil reserve. He points out that a survey by the Los Angeles office of the Petroleum Co-ordinator for War in conjunction with a California Oil Industry Committee, determined that there are proven locations for more than 2500 shallow heavy oil wells in California. He estimates that these wells will require some 7,500,000 feet of casing; this in addition to the casing requirements of hundreds of deeper wells that must be drilled. To meet this demand he estimates that there is something less than 3,000,000 feet of casing available in California.

These figures led to the conclusion that someone should devise a procedure which, while not a cure-all for every condition, would be designed to occupy that no-man's-land between the necessity of drilling the wells and the lack of casing with which to drill them. Ickes and Davies are doing a glorious job; honest and sincere, but they cannot improvise steel stocks, therefore the operator, to drill these badly

R. V. New

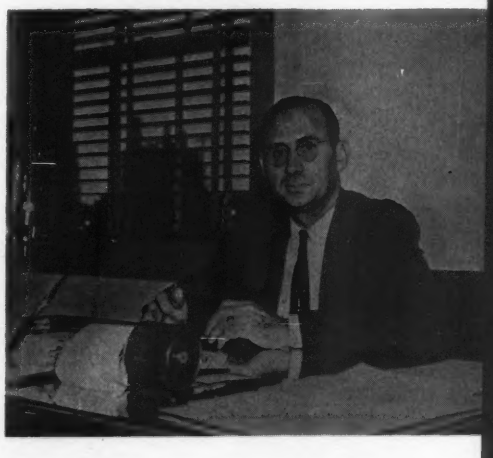
needed wells, must use salvaged materials and ingenuity to produce many more barrels of oil with many fewer tons of steel. Since the biggest item of steel tonnage in a well is casing, a logical question is whether, in all circumstances, it is needed.

Mr. New noted that, in the most of the Continental Corporation and Continental Development Corporation wells, which were drilled on the Los Angeles County Flood Control Channel on the easterly edge of the Wilmington oil field, the tubing had not been removed from the wells since completion, except for the removal of the packer. He noted that the gravel pre-packed liners which had been used in the wells had controlled the sand entrance into the wells sufficiently well that they had not required bailing since the time of the original completion. He reasoned, since these wells did not need bailing and since it was unnecessary to pull the tubing, there was no immediate benefits of having the water string extend to the surface. He decided if wells were completed with a combination liner, the tubing could be anchored in the top portion of the liner and the wells could probably produce throughout the war period without the necessity of removing the tubing. As a result of this reasoning, Mr. New met with F. A. Graser, a well known Consulting Petroleum Engineer, who is engineer for Continental Corporation and Continental Development Corporation, and M. L. McGee, Superintendent for the Continental Companies, and presented his idea for drilling without the use of water strings.

The discussion of the problems brought out the necessity that a definite procedure would involve the following principles:

1. No new devices should be contemplated in drilling these wells.
2. The program should utilize best recognized oil field practices with the exception of the one proposed change, i. e., the elimination of the water string in the proposed program.
3. A definite shut-off should be determined between the water sands and the oil zones to be produced.
4. The well should be completed in the best manner to remove the mud fluid from the hole according to the approved practices.
5. The hazard of not being able

F. A. Graser



to re-enter the liner should be reduced to a minimum.

6. There should be no obstructions to prevent the passage of a bailer through the tubing prior to pumping the liner full of cement for abandonment.

As a result of this discussion the following procedure was outlined together with a diagram of the various stages involved in completing the wells and placing them on production.

FIGURE ONE shows a hole drilled to the bottom of the oil zone having the hole reduced with a tapered shoulder in the shale immediately overlying the oil zone. Figure 1 also shows a liner being lowered into the hole on the drill pipe. The liner is composed of a gravel pre-packed screen on bottom, a steel taper (to fit the taper in the hole) immediately above and attached firmly to the blank casing, a metal petal basket also on the blank casing, a cementing collar, additional blank casing, a machined swage, a length of casing of increased size and an adaptor. The distance from the top of the perforations to the cementing collar is usually five feet. The entire length of blank pipe should be about 100 feet and the enlarged portion should be about 25 feet long with its top in a shale body. The perforated screen could be conveniently perforated or pre-packed as shown depending upon the condition and size of the sand to be screened.

Inside the liner is a tail piece which at its upper end is screwed to the bottom of the adaptor and which at its lower end has a cementing tool for cementing through perforations.

FIGURE TWO shows the liner landed and hung on the tapered shoulder of the hole by the steel taper attached to the blank casing. The setting tool has been released from the adaptor and the cementing tool has been raised to a position for cementing through the cementing collar. The casing is centered by the stabilizer at the top of the liner and by the taper at the point of reducing the hole.

FIGURE THREE shows the liner cemented and the tool lowered again for washing out excess cement leaving the hole and liner clear of cement. After washing out the cement, the cementing tool could be raised to the enlarged portion of the liner and circulated for an additional time during the setting period of the cement or it could

M. L. McGee

be removed from the hole and the drill pipe rerun with a small bit. The hole should be kept open by circulation during the entire time that the cement is setting.

FIGURE FOUR shows the blank casing gun-perforated immediately above the cementing collar. It also shows a two packer tester on the bottom of the drill pipe for testing the shut-off. This method of shooting for a water test is approved by the California State Division of Oil & Gas. It should be mentioned that the holes should be shot in shale if the sands are unconsolidated. Thin streaks of sand could cause trouble if gravel packing is necessary. Therefore, it is advisable that the hole be cored at the depth where the gun perforations are made.

FIGURE FIVE shows the liner after testing. It also shows tubing in the hole set on a bottom hole packer resting on the machined swage at the base of the larger casing. The machined swage allows an additional precaution of a lead seal or a seal of other packing material.

It has been found advisable at times for cleaning oil wells to have the hole tubed to bottom but to have the tubing above the perforations for pumping. By running a 1¼" tail piece below the 2½" tubing, the tail piece can be removed through the 2½" tubing after swabbing. It is possible that the tail piece could be fastened in position similarly to the inner barrel in a full-hole core barrel and could be removed by the sand line with the same safety features. After cleaning the well, a pump shoe could be run on the sand line and a bottom lock pump used. Another method would be to set the pump shoe in the tubing and anchor the tail piece to the pump shoe. The tail piece could later be removed with the sand line.

A drilling mud of low water loss and with a thin filter cake should be a prime requisite. Sand should be almost completely removed from the mud. This requirement will add safety to getting the liner to the required depth, keep the hole open while waiting on cement, minimize the need for washing or acidizing the perforations, and give the operator a reasonable chance to remove the tubing from the liner for a short period after landing. Also the hole between the tubing and the well bore should be kept full of mud of good quality at all times during the drilling operations and for several days after completion.

The use of the tapered shoulder is an art generally used for the purpose of testing oil sands in open hole. In at least one well in the Montebello oil field, a device similar to that proposed was used for the purpose of separating a high pressure gas sand from water sands thereby preventing the cement slurry from becoming gas cut and failing to set.

The tail piece below the adaptor is a method commonly used for cementing between zones where mul-

tiple stages are necessary. It has also been used for cementing a combination liner where the top of the liner laps into the water string. Compared to the latter procedure the proposed method is no different except that the top of the liner is an open hole. There are several devices on the market at the present time which can be used for cementing through the cementing collar. It is also possible to eliminate the basket above the taper but it is proposed as a safety feature. The packer shown in FIGURE FIVE could be altered in case of exceptionally high gas pressure within the oil zone whereby slips could be used which would prevent the packer from moving either up or down.

The idea of using a liner for production purposes has also been suggested in wildcats which have previously been drilled in California. There was one case in the San Joaquin Valley where several sands were cored which appeared to be worthy of a test. The sands were well consolidated and could therefore be gun-perforated for a series of tests in stages. The operator cemented a small blank liner in the hole with a larger casing in the top portion to facilitate re-entry into the liner. The liner was gun-perforated and drill pipe was run into the hole with a hook wall packer and formation tester on bottom which was set in the wall of the liner. Upon failure of the formation to produce oil in satisfactory quantities, the liner was plugged and further tested in stages. Upon completion of all the tests the hole was abandoned. By means of the use of this liner method of testing, several thousand feet of casing were saved for the war effort. Had any one of the zones been found to be productive three procedures were open. A full string of casing could have been run into the hole with its bottom end in the enlarged portion of the liner and a shut-off could have been obtained through it, or (2) the well could have been produced for an indefinite period of time through the drill pipe, or (3) tubing could have been run into the well, set on a packer above the oil zone and the well could have been swabbed and completed through the tubing.

The prime consideration in using the procedure for drilling oil wells without water strings, is that the oil sands should be consolidated or, if the sands are unconsolidated, the proper procedure for screening the sands from the well should be definitely pre-determined before using this method.

It has been suggested that this method is adaptable to deep wells, producing from consolidated oil sands where it is expected that repressuring, either natural or artificial, will be used to flow the wells to depletion.

It must be remembered that the proposed method should be considered as a war measure. It is possible that it will prove economically sound and may be used under prescribed conditions after it is no longer necessary to conserve steel for the war effort.

The application of the greatest economical importance obviously will accrue to those having tubing which can be re-claimed from present wells for the use in drilling wells without water strings. Wells from which the tubing is removed can thereafter be produced with the same deep well plunger pump previously employed with a few alterations. With cooperation of the Los Angeles office of the Axelson Manufacturing Co., Mr. New has worked out such alterations to a highly practical point.

In many instances the cost of labor will be the principal controlling factor in the economics of the procedure, i.e., where the time consumed in drilling to the oil sand is sufficiently short that the cost of such drilling is not out of proportion to the cost of a string of casing. Wells drilled without water strings are not only susceptible to remedial work but cost approximately $12,500 each at 3500 feet. Since redrilling jobs in the Wilmington field generally cost about $10,000, the cost of a redrill job is not very much less than the estimated cost of drilling new wells under the proposed plan. Therefore, the difference in cost is not of great economic importance.

All details of the outlined procedure have been presented personally by Mr. New to Harold L. Ickes in Washington, and after consultation, at the request of Robert E. Allen, Ass't Deputy Petroleum Coordinator, Continental Development Corporation has agreed to drill six wells in the Wilmington field immediately, utilizing the proposed method of drilling wells without water strings.

V. J. Fawcett Advanced by Lufkin

Lufkin Foundry and Machine Co.'s Ed Trout, Pacific Coast manager for the past 15 years, has been called back to the home office at Lufkin, Texas, to fill an engineering post in connection with the company's Army and Navy war work. Trout, well known among California oil men, hopes to become re-united with his many friends when the shootin's all over.

V. J. Fawcett

Meanwhile, V. J. "Vic" Fawcett, associated with the local office for the past nine years, has been placed in charge of the California branch.

Nineteeners Hold Annual Golf Tournament

By J. H. Hayter

October 17 and 18 were set aside by the Nineteeners for their annual golf tournament at Rancho Santa Fe. The membership turned out in full force with the exception of Doc Emmons and Bill DeRidder, who were east on business, Dick Whelan. who was laid up with a broken arm and Gordon Tunnell, who was "grounded" on his return trip to the coast.

The principal event was the Calcutta of 18 holes each on Saturday and Sunday. The highly valued prizes were won by Lev Sacre and Rolly Lohman in a tie for first and second places; Jerry O'Leary captured third prize, Jim MacDonald came in fourth, Bill Cline, Howard Chapman, Hal Lindquist and Doc Hayes split fifth and sixth prizes. All others were outside the prize money and the reason might be that they were over-trained.

Some of the members went into a heavy training schedule—playing the course several days in advance of the tournament and then indulged in alcoholic rubs (90 proof) and then fanned with bright colored pasteboards.

Bottlenecks were cleared in some good corking sessions and the flow of trade was stimulated while deals were shuffled at intervals and salesmen were making calls on purchasing agents, and visa versa all during the evening until the final showdown.

During the dinner session Olin Magary, the new Big Shot, was installed in office, while Jim MacDonald, the retiring Big Shot, was presented with a beautifully engraved gold trimmed gavel by the members as a token of appreciation for the fine service he rendered in his office during the past year and one-half.

Ed Fisher from Houston, Texas—an Ambassador at Large for the Nineteeners—came out to California especially for this meeting. Ken Norris was presented with the Texas Trophy by Ed Fisher; he also presented Ken with a Buffalo Plate brought especially from Texas and also presented Lev Sacre and Ken Norris with leather embossed wrist watcd straps. Doc Pennington, Mel Campbell and Ed Fisher were the donors of the Texas Trophy and all had a hand in selecting the above presents.

A ball on the first tee looked like a string of pearls to Tom Bell after a heavy session the night before, and Tommy plays with Spaulding clubs too.

On the coast at Del Mar the dim-out is in effect from darkness to dawn, but Jay Perrin said it looked like a dim-out to him all the time.

Doc Hayes had trouble reaching pay dirt because he did not like the mud mixture coming out of the hole to the 14th green.

Jake Martin wondered why no one thought of a pipeline to drain that pool in front of the 13th.

Hans "Ah-h-h" Ross met a great many of his long lost relatives at Del Mar.

Dick Townley and Joe Aderhold could have done better at the Bing Crosby Race Track nearby—had there been any horses.

Holly Hayter staked everything on his caddie, but Manuel had an off day.

John MacLeod, poor fellow, had to inspect one of his airport jobs on the way to the tournament and could not level off on his golf.

Charlie Perkins' caddie developed a charley horse so Charlie had to help carry his boy and bag as well.

Henry Paulsen doesn't like those right handed golf courses, and Bill Beck could not see why they did not lay out the Santa Fe course just like they did Wilshire.

Arch MacDonald and Dale Russell were both too new to the course, while Percy Hayes got off line a couple of times and never could make up his losses.

Earle Jorgensen and Tut Tuttle were nip and tuck most of the time and they will tell you that they do not have enough handicap.

Dutch Zwerneman and Gil Nesheim were left at the post on the second day.

Fred Currie, the newly elected Hot Shot, was off form and Harold Davis just didn't get his chips to working until after the golf game.

Lucky Lindmoe had the first prize all bottled up on the first day, but made the mistake of going to bed too early that night. The next day, of course, he was not normal and everything went haywire.

Leonard Price and Charlie Napier were not more than 10 strokes behind, but 10 strokes means a lot to these golphers sometimes.

Wally Rushing had trouble with his recoil mechanism, and his shots either missed the target altogether or rolled down the fairway like a hard boiled egg.

There was Blind Bogey in addition to everything else, and Allen Johnson, the Club's Champion, pulled his own number out of the hat for a solo win.

With the rubber and gas situation as it is and the demand for all hands in the defense program, the Nineteeners are back at their desks again and hoping their united effort added together with other good citizens of U.S.A., will have the battle won and gather again next year to their annual retreat at Rancho Santa Fe.

Members Wear "E" Badges

The Army and Navy Production Award is only available to manufacturers of war materials. In the Nineteeners Associations are representatives of twelve leading manufacturers, -eight of these men are wearing the Letter "E" badge of honor for high achievement in the production of war materials.

That these men are justly proud of the honor received by their Companies goes without saying, and while the Nineteeners is an association that meets once a month for a game of golf, it proves that this means of relaxation has not hindered their chief purpose—which is, of course, to extend themselves to the utmost in the interest of producing war materials for our fighting forces here and abroad.

There are probably more "E"-Men in the Nineteeners than any similar group of a like number.

Ken Norris received his Navy "E" more than a year ago for his Company — The Norris Stamping and Manufacturing Company.

Fred Currie was the next Nineteener to wear the Navy "E" presented to his Company, The Timken Steel Company.

Then came the award to Bill DeRidder and his General Metals Corporation plant at Oakland.

Next came the award to Axelson Manufacturing Company and to Dutch Zwerneman the privilege of wearing the Army and Navy "E" pin.

Early in September the Chain Belt Company also received this highly coveted award and Jim MacDonald now wears the "E" pin.

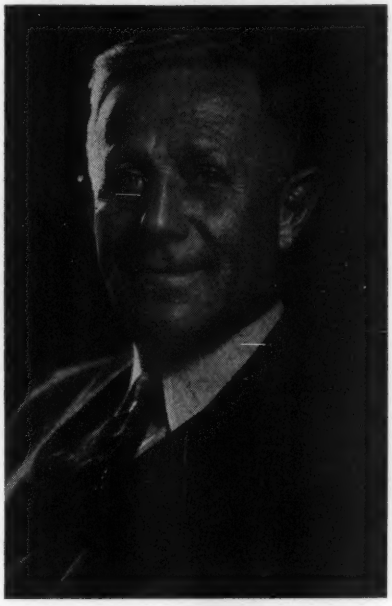
John MacLeod of Macco Construction Company received his notice of award just the other day, so he and B. J. Mahaffey will be seen wearing their pins soon. Chapman Valve Company were awarded the Army and Navy "E" October 30, 1942, and Jerry O'Leary is now wearing the "E" pin.

If all the manufacturers engaged in war work were producing at the scale that commends them for the Letter "E" award there would be no problem of material shortage for the Army and Navy.

Nomads November Meeting

The vital importance of the new Alaska Highway was clearly disclosed at the regular monthly meeting of the Los Angeles Chapter of Nomads held in Los Angeles on Wednesday evening, November 18, 1942. A brief business meeting followed the dinner which was so well attended that extra tables had to be set up to accommodate all who were present. President Bill Bettis then introduced the speaker of the evening, Hugh Matier, who, after a most exciting life in many distant parts of the world, is now in charge of public relations for the Union Oil Company of California.

Mr. Matier is a founder member of the Pacific Geological Society and a patron of the Smithsonian Institute. As a geologist for the Union Oil Company he long ago won recognition for his archeological achievements and



Hugh Matier

during the years has travelled to practically every corner of the earth. The subject of his talk was "Alaska, The New Frontier," and since he has just returned from a three-months' trip through Alaska and Canada over the highway which is to be opened December 1st and, because in 1908 he made a survey for the Canadian Minister of Lands of the particular route being followed by this highway, he was eminently qualified to cover this subject.

By December 1st truckloads of aviation gasoline together with vast supplies and necessary war material will be travelling 1600 miles over this new all-weather highway to Alaska. The war with Japan made us realize the strategic importance of this highway and called forth the engineering ability to put it through in record time. The job seemed almost impossible but the entire 1600 miles were built in 260 days, an average of six miles a day.

In discussing the military situation of this part of North America, Mr. Matier pointed out that if Japan should invade Siberia she would probably cut off the northern peninsula extending toward North America and would then be closer to Alaska than is Dutch Harbor. Then, advancing by air to the headwaters of the McKenzie River where the tundra would provide excellent landing fields, Japan would be within eight hours flying distance to the cities of Canada and northern United States. With the new highway providing speedy access for men and material from the United States into this territory we can now guard against such attack and can ourselves advance westward with greater facility.

Mr. Matier painted a glowing picture of post-war possibilities in Alaska and reminded the Nomads that this highway was one link in the highway extending from the northern tip of North America to the southernmost parts of South America. Some day we expect to be able to travel by car from one end of the western hemisphere to the other.

A number of guests were present at the Nomads meeting and among them were the following men from other countries: B. R. Cunningham of V.O.C. from Venezuela; Frank McAtier, who was formerly with the Burmah Oil Company; Meade McCamey of the N.K.P.M.; J. C. Vandenberg of the B.P.M.; Sanford Hall of Burmah Oil Company; E. B. Udlock of Standard Oil of Venezuela; W. F. Parraga of C.A.S.O.C.; John Bryde of Cia Shell de Colombia; and Homer LeFlor of Socony Vacuum of Venezuela.

Chain Belt Co. Announces New Appointments

The Chain Belt Company of Milwaukee, through J. C. Merwin, President, announces the appointment of George D. Gilbert as General Manager of Baldwin-Duckworth.

Baldwin-Duckworth, a Division of Chain Belt Company, operates plants in Springfield and Worcester, Massachusetts, manufacturing machine finished roller chain and sprockets.

Mr. Merwin also announces the appointment of William H. Gates as Works Manager of the Baldwin-Duckworth Division.

Security Engineering Co., Inc. Receives "M" Award For War Production

The highest honor bestowed by the United States Maritime Commission — the "M" burgee — was awarded the Security Engineering Co., Inc., of Whittier, California, on November 20th, in colorful ceremonies held at the plant and attended by an enthusiastic audience of about two thousand persons. In addition to the Maritime "M," the Commission awarded the Victory Fleet Flag and Labor Merit Badges to employees of the firm in recognition of their outstanding production achievements. The honors were awarded for Security's excellent record in converting from peacetime manufacture to war production, for the originality of production methods employed, for simplification of product design which further increased production, and for the high standards of quality maintained from the very first despite difficult production schedules. The ceremonies were attended by a number of military and government officials including Charles E. Walsh, Jr., Chief of Procurement Section, Production Division, United States Maritime Commission, Washington, D. C.; H. C. Acker, United States Maritime Commission, Oakland, California; Commander J. C. Arnold and Lt. Commander Clarence Froome of the United States Navy; Major C. W. Clark of the United States Army; Commander C. W. Thomas and Lt. Max Sturges of the United States Coast Guard. James Vandiveer, Director of Special Events for Radio Stations KFI and KECA, acted as Master of Ceremonies, and appropriate music was furnished by the Eleventh Naval District Coast Guard Band under the direction of Rudy Valee, Bandmaster.

(Left) Charles E. Walsh, Jr., Chief of Procurement Section, Production Division, United States Maritime Commission, Washington, D. C. (Center) W. E. Sievers, Executive Vice-President of Security Engineering Co., Inc. (Right) Otto Hammer, Vice-President and Chief Engineer of Security Engineering Co., Inc.

Shown above is a part of the 2000 persons who attended Security Engineering Co., Inc., ceremonies at which the Maritime "M" Burgee was awarded.

Charles E. Walsh, Jr., presented the Maritime "M" pennant and W. E. Sievers, Executive Vice President, accepted the award.

Considerably before Pearl Harbor, Security Engineering Co., Inc., foresaw the necessity of all industry engaging in full capacity in war production and began the manufacture of steel valves and fittings and other ship materials for the shipbuilding program. The Company has sufficient volume, making it possible to ship these materials to all parts of the United States.

Morgan in Charge of BJ Export Office

The Oil Tool Division of Byron Jackson Co. announces the appointment of O. W. (Ox) Morgan as manager of its New York Export Office, in the Graybar Building, New York City

O. W. Morgan

S. F. Remmel

Morgan has been associated with the Oil Tool Division of the company for many years in California, Oklahoma, Texas, Louisiana, Kansas and Illinois, and is well qualified to promote sales at this time and to develop plans for post war business.

Byron Jackson Co. also have appointed S. F. Remmel as representative of the Oil Tool Division in Washington, D. C., with headquarters at the Brighton Hotel. Remmel is widely known in California, where he was sales manager, and will be remembered also by foreign visitors to California during the past few years.

F. H. Payne Dies Suddenly

Mr. Francis Hervey Payne, President of American Meter Company, and manager of the Corporation's Metric Metal Works Plant at Erie, Pa., died suddenly at 7:30 p. m., Tuesday, November 10, 1942, while attending the monthly meeting of the Men's Club at St. Paul's Church, Erie, Pa. He was in his seventy-fifth year.

Mr. Payne was born April 1, 1868, at Petroleum Center, Venango County, Pa., where his father, the late Calvin N. Payne, was engaged in drilling for oil and built the first natural gas pipe line in America.

Francis Payne was a graduate of the Titusville High School, the Hill School of Pottstown, Pa., and of Princeton University, Class of 1891.

His advent in the gas meter business was in July, 1891, when he became Secretary and Manager of the Metric Metal Company then at Beaver Falls, Pa.

Mr. Payne enjoyed an unbroken record of almost fifty-two years as manager of this important operating factory, which became a part of American Meter Company when that Company was organized in 1895.

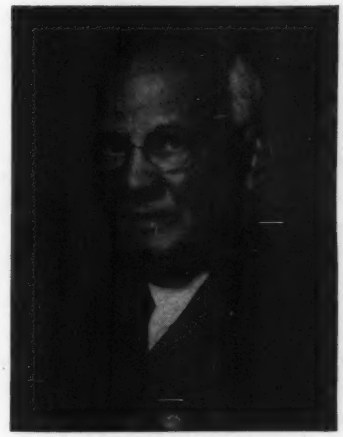
He was a Director of this Corporation for many years prior to his election as Vice President in 1923, and as President in June, 1936.

Mr. Payne had an active interest in the civic affairs of his home community, and at the time of his death, he was a Director of the American Gas Association, the Erie Chamber of Commerce, and the Erie County Health & Tuberculosis Assn., and President of the Board of Library Trustees, Erie, Pa.

He was a Director of the First National Bank of Erie for many years, and Chairman of the Board of the National Bank and Trust Co.

He was a member of the Uptown Club of New York, the Kahkwa Club of Erie, and of many clubs and organizations.

On the occasion of Mr. Payne's fifty years of service with American Meter Company on June 20, 1941, a testimonial dinner was tendered him at the Kahkwa Club in Erie by the Directors, Officers and members of the Company.



Francis H. Payne

Important manufacturing history in the measurement of gas and oil was made during Mr. Payne's many years of management of the Metric Metal Works plant. In 1891, tinned steelcase gas meters, extensively used throughout the United States since 1836, were first made from dies. High pressure ironcase meters were also developed and improved from 1888 until the present. In 1916, Ballard Westcott orifice meters were developed. This principle of orifice measurement is extensively used in recording the large volume flow of gases and liquids in the Gas and Petro-Chemical Industries.

Mr. Payne is survived by his widow, Mrs. Myra Lee Payne, and two sons, F. Dana Payne and Calvin N. Payne, II, also by a sister, Mrs. Axtell J. Byles, and a brother, Christy Payne, who, before his retirement, was treasurer of the Standard Oil Company of New Jersey.

Engineering, Technology, latest news—twice a month in California Oil World.

THIS LAUGH

OFF!!

Landlady brought in a plateful of extremely thin slices of bread and butter, which rather dismayed her hungry men boarders.

"Did you cut these, Mrs. Brown?" asked one.

"Yes—I cut them," came the stern reply.

"Oh," went on the boarder. "All right—I'll shuffle and deal!"

"What would your husband say if he knew you were necking like this?"

"I really don't know. He doesn't know I can neck like this."

An old man heard about a treatment that would restore his youth. The medicine was a certain extract made up in pills. He bought a box, but instead of taking one every day, he swallowed the whole boxful one night before going to bed. Next morning the family had great difficulty in waking up the old man. At last he rolled over and rubbed his eyes. "All right, all right," he grumbled, "I'll get up, but I won't go to school."

Usher: "Did you want a front seat, madame?"

French Cutie: "oui, oui, monsieur, oui, oui."

Usher: "Pardon me—mezzanine, first door to your left.

Mose sat on his front porch munching corn bread when one of his hens went tearing past, followed by the old rooster in high gear. Sundenly the rooster applies his brakes, pulls up short, trots back and starts picking at the corn bread crumbs at Mose's feet. The old darky eyes him in astonishment, then explodes, "Lan sakes, Mr. Rooster. I hopes Ah never gets dat hungry!"

A soldier in camp was writing a letter home to his mother. He was speaking of all the things at home that he missed. He wrote— "Dear Mother, I miss you so very much, and also something else that I miss is the pot under the bed."

His mother wrote back to her dear son and said—"Dear Son, I can see how you might miss me very much, but as for the pot under the bed—you always did miss that . . .

The hard wind had jammed the door of the oil fields residence and the door had to be raised a little to be opened. For this purpose a hatchet was used. One day a knock came at the door and a youngster was sent to see who was there.

"Who is it" inquired the boy.

"It's me," said the voice outside.

The youngster, recognizing the voice shouted back: "It's the assessor; get the hatchet."

The assessor didn't wait.

Hostess: "I won't offer you wine, Mr. Brown, for you are head of the Temperance League."

Guest: "No, I am head of the Vice League."

Hostess: "Well, I knew there was something I shouldn't offer you."

Two kinds of people are consoling in times of crisis—those who are completely courageous and those who are more scared than you are.

They say that Dartmouth has a statue of the famous Revolutionary soldier, General Howe. It's hidden in the dark, deep interior of the library . . . and when the Dartmouth boys have their girls up for the week-end they take them to the library and show them Howe.

"May I take you home? I like to take experienced girls home."

"I'm not experienced."

"You're not home yet."

TOUGH . . .
BUT GENTLE!

It is built to take punishment. You would hardly expect a thing so tough to have gentle ways. Yet other equipment seems to hold up longer, too, when a well is equipped with a JENSEN JACK.

Which is not surprising. You are just kidding yourself if you think the oldest and largest exclusive manufacturer in the business got that way by making ordinary pumping equipment. **Why don't you investigate?**

California Representative

A. V. TURNER
445 W. 8th.
Downey, Calif.
Phone: Downey 47478

Stocked by
THE OIL TOOL CORPORATION
3075 Cherry Avenue
Long Beach, Calif.
Phone: 481-81

JENSEN
BROTHERS MFG. CO.
Coffeyville, Kansas, U.S.A.

EXPORT OFFICE: 50 Church St., New York City

Field Development

Los Angeles Basin

Wilmington Field Wells Finished

Long Beach Oil Development has three new producers on the "W" parcel in the Wilmington Field. No. 35 bottomed at 3940 ft. and completed pumping 168 bbls. of clean 16.6 gravity crude, No. 40 finished at plugged depth of 3508 ft. pumping 55 bbls. of 16.8 gravity oil cutting 5.7% while No. 41 bottomed at 3054 ft. and was turned to the tanks flowing 275 bbls. of 16 plus gravity clean oil and 50,000 cu. ft. of gas through a 48/64 in. bean. The company is preparing to complete No. 33, is rigging up on No. 38 and has poured foundation for No. 42 which are the last of an approved 10 well program. The operator has filed application for three wells on the "Z" parcel at southeasterly field flank with one of them, "Z-1" No. Z-9, to be drilled as an exploratory hole from the end of Pier "A".

General Pet. Corp. redrilled Terminal No. 5 and completed pumping 126 bbls. of 15.9 gravity oil cutting 29.0% while Union Pacific Railroad Co. redrilled Offset No. 24 to obtain a pumped return of 81 bbls. of clean 15 gravity oil.

At the northerly field limits The Texas Co. continues development of its fee owned refinery site with No. 6 latest on the pump. Production is 34 bbls. of clean 16 plus gravity oil. No. 7 is spudded and ground work is proceeding on project No. 8.

In the Northwest Wilmington area The Flintkote Co. well No. 1 is drilling at 3241 ft., Morton & Dolly Grant No. 1 is making hole at 500 ft. while Pongratz Pet. Co. is rigging up on Spring No. 2. Dunlap Trust No. 2 well "W" No. 7 is preparing to start on a site 155 ft. north and 130 ft. west of the centerlines of "Q" and Van Tress Avenues.

New Wells Planned For Los Angeles Co.

Several wildcats are scheduled for Los Angeles County in the immediate future. In the San Fernando Reservoir area J. Paul Getty proposes to drill Foothill-Orchard No. 1 at the northwest corner of Rinaldi Street and Balboa Avenue. Operations are expected to begin by December 15th. Another project will be Caloga Oil Co.'s Canoga park try which is to be put down on the southeast quarter of the northeast quarter of section 35-2n-17w.

Also planning an early start is Wm. C. McDuffie who has received permission from the OPC to drill an 11,000 ft. wildcat at the southeast corner of Santa Monica and Beverly Glen in the Beverly Hills area. While granted permission to prospect to depth this well expects to find production in the Miocene near 3000 ft., a circumstance long considered a possibility along the Newport-Inglewood uplift. Universal Cons. Oil Co. has applied for permision to drill on the Hill Crest

LOS ANGELES BASIN WILDCATS

Area	Well	No.	Section	Depth	Status
Castaic	Young, Roy W., Inc., Walker	1	11, 4-16	9981	Idle
Del Valle	Union Oil Co. N. L. & F.	1	20, 4-17	6336	Fishing
Las Llajas	West'n Gulf Oil Co., Brady	1	13, 3-17	4752	Drilling
L. A. City	Schirm & Rubenstein H-S	1	24, 1-13	3919	Idle
	Shell Oil Co., Inc., Verne Comm.	1	21, 1-14		Location
Newhall	Aztec Oil Co., Sanborn	1	6, 3-16	6894	Idle
	James C. Brazell, Perkins	1	11, 3-16	4473	Idle
	So. Calif. Pet. Corp., Lassalle 44-1		3, 3-16		Location
Potrero	Duquesne Oil Co., Eunice	1	3, 3-14		Rig
Puente	Barry Oil Co. Inc., Roland	1	14, 2-10	2098	Testing
	The Flintkote Co., Turnbull	1	12, 2-11		Rigging up
	Melvin Hansen, Dragna	1	24, 2-10	2749	Drilling
Rio Hondo	PotreroOil Co.,Newman	1	32, 1-11	5625	Drilling
San Fernando	TideWater Assoc., Sesnon	1	28, 3-16	9086	Completed
Whittier-La Habra	Los Nietos Valley Oil Co., Woodward	1	29, 2-11	3317	Idle
	H. & C. Oil Co., Joyce	1	22, 2-11	4680	Drilling
	Orange County				
Buena Park	The Texas Co., Buena Park 4F	1	36, 3-11	9572	Abandoned
Stanton	J E. F. Oil Co., Well	1	23, 4-11		Material
	Riverside County				
San Jacinto	Wonder Oil Co., Stroh	1	30, 4-1	2574	Drilling
	San Bernardino County				
Carbon Canyon	Stella, E. F., McDermont	2	5, 3-8	942	Drilling
	Municipal Oil Co., Mahala	1	13, 3-8	4217	Pumping
Colton	Supreme Oil Co., Well	1	2, 2-4		Rigging up

Country Club property in the same area while also requesting the right to drill on the Raymond W. Stevens property in the old Salt Lake field. In the old L. A. City producing area Shell Oil Co., Inc. has already received permission to drill Verne Community No. 1 near the corner of First and Gardner Streets.

Bartholomae Plugs Deep Try

Bartholomae Oil Corp. bottomed Stern 12, sec. 22-3s-10w in the East Coyote field, at 9500 ft. after topping the Sespe near 9000 ft. Drilled as a deep exploratory hole, the well found the lower section unpromising and plugged to 6484 ft. to complete in the Bartholomae zone. 8 5/8 in. casing is now standing cemented at 5345 ft.

In the old section of the field Wood-Callahan Tuffree No. 2, sec. 19-3s-9w, plugged from old bottom at 3470 ft. to 3109 ft. and is currently redrilling at 3450 ft. Severns Drilling Co. is considering drilling an outpost well at the field flank.

PEACE-TIME EXPERIENCE INSURES WAR-TIME EFFICIENCY

Pacific Heavy Duty Oil Well Pumping Units

These large, self-contained, steel frame pumping units are designated as our Series C-Twin Crank Rotating Counterbalance type. They are made to handle high capacity or exceptionally deep wells. These are the largest of our portable units and consist of the walking beam, sampson post, horsehead with wire line sling and carrier bar, twin Pitmans, twin rotating counterbalance cranks, Pacific double reduction herringbone gear in case, brake, heavy structural foundation, complete V-belt drive and V-belt guard and mounting equipment for power unit. Units of this type are in use all over the West and have proved by experience to be economical in operation and unusually durable and trouble free in service.

SIZES AND CAPACITIES

Serial No.	Gear Ratio	A.P.I. Peak Torque 20 Strokes per Min.	Nominal H.P. 20 S.P.M.	Maximum Stroke	A.P.I. Polish Rod Load Capacity
C-42LF0-15	41.2	90,000 Inch Lbs.	18.2	44"	15,000 Lbs.
C-48LF0-20	32.4	137,000 Inch Lbs.	28	54"	20,000 Lbs.
C-52LF0-25	32.2	177,000 Inch Lbs.	35.6	64"	25,000 Lbs.
C-60LF0-25	48.0	260,000 Inch Lbs.	53	74"	25,000 Lbs.
C-72LF0-25	47.3	410,000 Inch Lbs.	83	102"	25,000 Lbs.

NOTE: PACIFIC PUMPING UNITS ARE ALSO MADE IN SMALLER SIZES.

PACIFIC GEAR WORKS 2053 E. 38 ST. LOS ANGELES

ASSOCIATED COMPANIES:

WESTERN GEAR WORKS—Lynwood, California
PACIFIC GEAR & TOOL WORKS—San Francisco
WESTERN GEAR WORKS—Seattle, Washington

Puente Area Yet Active

In the Puente Hills-Turnbull Canyon section of the Basin the search for additional production continues. In the new Canyon field Continental Oil Co.'s Turnbull Comm. No. 4 is drilling in oil sand and shale at 3896 ft. with indications pointing to another of the good completions which the company has been affecting. At the southeast flank of the proved section of the field Jefferson Oil Co. is reported planning extension try to be drilled with the support of Shell Oil Co., Inc. and McVicar-Rood.

At the northerly end of the Canyon The Flintkote Co. is rigging up to drill Flitkote-Turnbull No. 1 as a wildcat 2179 ft. north and 355 ft. west of the southeast corner of sec 12-2s-11w.

Yet further north and near the town of Puente, Barry Oil Co. Inc. Billy Rowland No. 1, sec. 14-2s-10w, is cleaning out to core ahead after unsuccessfully testing from the shoe of 8 5/8 in. casing at 1221 ft. to 1241 ft. Recovery was all water from a 20 ft. streak of coarse grained loose sand which showed cuts enough to warrant trial. Present total depth is 2098 ft. Ross & Erlich are reported planning a test on nearby acreage.

In the hills southeast of town Melvin Hansen's Dragna No. 1, sec. 24-2s-10w, is drilling in hard shale at 2749 ft. after freeing stuck drill pipe and reaming down near 1050 ft. where trouble has repeatedly been encountered.

Tide Water Pushes Aliso Canyon Limits

Tide Water Assoc. Oil Co.'s Sesnon No. 1, sec. 28-3n-16w, extended Aliso Canyon producing limits a half mile to the west when it finished redrilling and deepening at 9086 ft. to complete in the Porter 12 zone flowing a 2400 bbl. rate. Settled production was 878 bbls.

Barnsdall Gets Good Completion

Barnsdall Oil Co. marked up another of its good Newhall-Potrero field producers when Rancho San Francisco No. 21, sec. 27-4n-17w, bottomed in the Third Zone at 7550 ft. and finished flowing 1052 bbls. of clean 33.5 gravity oil and 625,000 cu. ft. of excellent gas through a 30/64 in. bean. The well is open from the top of the Third Zone at 7320 ft. to 7511 ft.

In the southeast section of the field the company is drilling No. 33 at 4905 ft. and is rigging up on No. 34. C. G. Willis, who drilled Ferguson No. 1 near the center of section 36 to prove the southeast section of the field productive, is planning to move out for an extension try with No. 2 some 750 ft. south and 1000 ft. east of the center of the section.

Westport Pumps Five Points Well

Westport Oil Co's W. P. No. 8 in the Five Points section of the Huntington Beach field is making a settled pump recovery of 85 bbls. of 17.8 gravity oil cutting only 6.0% from 3898 ft. The yield has gradually increased in volume and is expected to better itself as the zone channels in.

D. D. Dunlap has poured foundation for No. 18 on an adjacent site some 495 ft. north and 425 ft. west of the centerlines of Garfield and Huntington Beach Boulevard.

Southwest Exploration Co.'s State No. 48 in the Tideland sector is standing with 8 5/8 in. casing cemented at 4756 ft. after reaching 4890 ft. with the company having applied for permits for No.'s 12, 50 & 54 as immediate projects.

Texaco Quits Buena Park Try

The geologic complexities existing in The Texas Co.'s yet small Buena Park field occasioned the abandonment of the company s latest driller, Buena Park 4-F No. 1, which is located near present production on sec. 36-3s-11w in Orange county. Bottomed in gray sand and shale at 9572 ft. the well was put on the hook after finding only thin poorly saturated sands incapable of production. The company is reported applying for OPC permission to once more try the puzzling structure.

San Berdu Well Pumping To Sump

Municipal Oil Co.'s redrill of the old Mahala Oil & Gas Co. No. 1, sec. 13-3s-8w in San Bernardino county, bottomed the new hole at 3804 ft. landed prepacked liner and is pumping to the sump an unestimated yield. First recovery was circulated oil and water with latest returns reported as live oil. The well produced good quality oil in small amounts at two levels on earlier operation and is believed capable of becoming a small producer.

On section 5 in the same township E. F. Stella McDermont No. 2 recovered a drill pipe fish and is making new hole at 942 ft.

WEST COAST CHEMICALS *for* WEST COAST INDUSTRY

Chemicals play a vital role in the industrial expansion now taking place in the West. As the West grows in importance, industrially, Dow's Great Western Division keeps pace. Thus West Coast Refiners, as well as other western industries, are assured a dependable source of supply for chemicals indispensable to industry and victory.

DOW

GREAT WESTERN DIVISION
THE DOW CHEMICAL COMPANY
San Francisco, California, U. S. A.
Seattle • Los Angeles

BEAR BRAND CHEMICALS
MANUFACTURED FOR WEST COAST REFINERIES

CAUSTIC SODA, NaOH	CAUSTIC POTASH, KOH
LIQUID CHLORINE, Cl_2	SULPHUR DIOXIDE, SO_2
ANHYDROUS AMMONIA, NH_3	AQUA AMMONIA, NH_4OH

Coastal District

Two Work At Goleta

Del Mar Oil Co. is deepening Rowe No. 1 on sec. 11-4n-28w in brown shale at 2296 ft. after standing idle at 1200 ft. since June, 1941.

On the Santa Barbara County Hospital acreage in sec. 12-4n-28w Security Land & Royalty Co. is repairing equipment to resume after drilling and coring to 2830 ft. in Monterey shale. No showings have been reported to date.

General Drilling Gato Ridge Well

General Pet. Corp. spudded Giorgi No. 1 on sec. 13-8n-32w and was last reported drilling after cementing 11 3/4 in. surface casing at 124 ft. Located in Foxen Canyon approximately two miles east of the south tip of the Gato Ridge field, the well seeks heavy oil along the same uplift from which the Gato Ridge and Los Flores fields produce.

Southeast of here on the same general trend Tide Water Assoc. Oil Co.'s Los Olivos area well, Davis No. 1 on sec. 33-8n-31w, is rated as a 125 bbl. producer of extremely heavy oil although at present shut in. Bottomed at 6643 ft. in hard claystone the well was plugged to 5956 ft. where perforated liner was landed opposite some 1300 feet of zone containing tar like sands. Too heavy to produce at first, the sands were circulated with distillate and pumped until at the last report the well was making a gross of 440 bbls. with an average net recovery of 125 bbls. of 8 to 11 gravity oil.

Cat Canyon "Cats" Work

Two outpost efforts near the Cat Canyon field yet continues operations. On sec. 25-19n-33w Bel-Air Oil Co.'s Williams No. 1 is deepening in hard shale at 6013 ft. after a formation test of the interval 5725-5917 ft. noted only a 60 ft. mud rise and no oil. Standard Oil Co.'s South Basin-Lloyd Comm. No. 1, section 15 of the township, is obtaining similar results since a formation test at 6250-6350 ft. recovered only mud. The try is drilling ahead in cherty shale at 6507 ft.

Bell to Start Lompoc Driller

Alphonzo E. Bell Corporation is building rig to drill Lompoc No. 6 660 ft. south and 330 ft. west of the E¼ corner of the southwest corner of sec. 28-8n-34w. Fickert Oil Co., Ltd. which has long had a rig up for well No. 1 on sec. 8-7n-33w is reported preparing to move in drilling equipment.

Bardsdale Eocene Test Continuing

Robert S. Lytle's wildcat Elkins No. 1, sec. 1-3n-19w, which is seeking Eocene production was last reported reaming after bottoming in fractured brown shale at 5234 ft. It's exact position in the geological column is under consideration with some evidence found for an opinion that the hole may have crossed through a fault bringing the well from the Sespe back into Pico formations.

Seaboard Starts Deep Canyon Well

Seaboard Oil Co. is rigged up and ready to spud Seaboard-Calument No. 1 on sec. 10-3n-19w as a deep test in the Shiells Canyon field. The company acquired acreage from Security Exploration Co. which has shallow production nearby.

COASTAL COUNTIES WILDCATS

Area	Well	No.	Section	Depth	Status
	Santa Barbara County				
Careaga	Univ. Consol. Oil Co., Careaga	1	5, 8-33	6123	Abandoned
Cat Canyon	Bel-Air Oil Co., Williams	1	25, 9-33	6013	Drilling
	Standard Oil Co. SBLC1		15, 9-33	6507	Coring
Gato Ridge	General Pet. Corp., Giorgi	1	13, 8-32	124	Drilling
Goleta	Del Mar Oil Co., Rowe	1	11, 4-28	2296	Drilling
	Security Ld. and Roy. Co. County	1	12, 4-28	2830	Drilling
Lompoc	Alphonzo E. Bell Corp., Lompoc	6	28, 8-34		Bldg. rig
	Fickert Oil Co., Ltd., Well	1	8, 7-33		Rig
	Ventura County				
Bardsdale	Hopland Oil Co., Well	1	1, 3-19	4634	Idle
	Lytle, Robt. S., Opr., Elkins	1	6, 3-19	5234	Drilling
	San Marino Oil Co., Elkins	1	7, 3-19		Rig
Conejo	Sycamore Oil Co., Boylan	1	23, 1-20	2747	Idle
Eureka Canyon	El Rika Oil Co., Well	3	33, 4-18	335	Drilling
Ojai	Coates, Spencer D., Pirie	5	7, 4-22	1033	Idle
Piru	Continental Oil Co., Holser	2	14, 4-18	43	Drilling
	Delroy Pet. Corp., Fisk C. H.	1	22, 5-18	2700	Redrlg.
	Pac. West. O. Corp. Temescal	15	4, 4-18		Grade
	T.W.A. Oil Co., Hidden	2	5, 4-18		Rigging up
Santa Paula	J. J. Stevens, Corehole	1	31, 4-20	700	Drilling
Sespe	McCaslin, W. E., Burson	1	19, 4-19	2039	Redrilling
	Merchants Pet. Corp., Cochran	5	1, 4-20	2018	Completed
	Volunteer Pet. Co., Tar Creek	3	28, 5-19	280	Idle
Timber Canyon	Crude Oils, Inc., West	1	19, 4-20	958	Idle
	Fletcher & Babcock O'Leary	1	29, 4-20		Location

NORTHERN COUNTIES WILDCATS

County	Well	No.	Section	Depth	Status
Butte	Pac. West'n & Getty Cana	1	11, 23n-1w		Prep to Spud
	Superior Oil Co., Dodgeland	1	30, 20n-1e	1200	Drilling
Contra Costa	Standard Oil Co., Jordan Unit	1	29, 3n-3e		Grading
Glenn	Ohio Oil Co., Willows-Block	A-1	18,20n-2e	3300	Completed
Monterey	Loma Grande Oil Co., Corey	1	23,24s-10e	4318	Idle
	Wm. C. Jensen, Vierra	1	7, 13s-2e		Rig
San Benito	Union Oil Co., Friedman	1	13, 16s-12e	6370	Fishing
San Joaquin	Standard Oil Co., Blewett Com.	3	23, 3s-6e		Rig
San Luis Obispo	W'n Gulf Oil Co., Huasna Comm	1	35, 31s-14e		Grading
Solano	Standard Oil Co. Fontana Farms	1	23, 3n-1w		Grading
	Standard Oil Co., Suisun Com.	1-2	36, 4n-2w	6007	Fishing
	Standard Oil Co., Suisun Com.	2-1	25,3n-1w	7300	Plugging
Tehama	The Texas Co., Walbridge	1A	32,28n-2w	1498	Rng. Casing

Sespe Well Lacks Fluid

Although having demonstrated commercial production after deepening to 2018 ft. Merchants Pet. Corp. Cochran No. 5, sec. 1-4n-20w, lacks fluid to remain on the pump steadily. Repeattd Tests have produced an average of 55 bbls. of clean 22.0 gravity oil in 8 hours before pumping off.

On section 19-4n-19w W. E. McCaslin is trying to sidetrack liner and deepen Burson No. 1 from 3039 ft. On section 28 in the next northerly township Volunteer Pet. Co.'s Tar Creek No. 3 is trying to straighten hole after reaching 280 ft. with cable tools.

Piru Work Resuming

Work in the Piru area is under way with three projects started and another ready to begin. On sec. 22-5n-18w Delroy Pet. Corp. is attempting to sidetrack junk to deepen Fisk Core Hole No. 3 from 2700 ft. while Continental Oil Co.'s Holser No. 2 on sec. 14-4n-18w is drilling in the grass roots in search of better production than was found in No. 1 some 1000 ft. away.

Tide Water Assoc. Oil Co. is rigging up on Hidden No. 2 in section 5-4n-18w and Pacific Western Oil Corp. is preparing to start work on Temescal No. 15 on the adjacent section 4.

Two To Start In Sta. Maria Valley

Two new projects are starting in the Santa Maria Valley field. First under way will be W. R. Gerard's Gerard-Acquistapace No. 1 in sec. 22-10n-34w which is currently rigging up. Next to start in the field will be Bel-Air Oil Co.'s Twitchell-Wedging No. 1 at the southerly flank.

Hancock & Bush has completed Wylie No. 5 on sec. 30-10n-33w for unestimated yield to wind up its current drilling program in this field. Union Oil Co. is running one string with several projects already laid out to be drilled in order. The tools are currently working on Mahoney No. 5, sec. 24-10n-34w, which is reaming to bottom at 3673 ft. after cementing casing at 2970 ft.

Ohio Finishes Glenn Co. Well

Ohio Oil Co. completed Willows Block A No. 1 on section 18-20n-2w in the Willows area of Glenn county at 3300 ft. flowing an estimated 1,240,000 cu. ft. of gas. Casing is cemented at 3177 ft. with 3 in. liner containing 114 ft. of perforation landed on bottom.

R. S. MIESSE

OIL LANDS & OIL LEASES

1208 Subway Terminal Bldg.
Los Angeles, California
Phone TUcker 7719

H&B

CONTINUES TO BE ABLE TO FURNISH PARTS AND PROVIDE SERVICE FOR

Wilson

DRILLING RIGS
PRODUCTION HOISTS
AND OTHER EQUIPMENT

H&B SALES CO.
2875 CHERRY AVE., LONG BEACH, CALIF.
TELEPHONE LONG BEACH 416-59

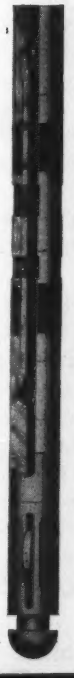
NO. 6

"CLEANING UP" FOR MORE PRODUCTION? HERE'S HOW TO INSURE IT

If you're cleaning up old wells to increase production, or if you want to free stuck liners for easier removal, this Bowen Liner Washer can help you . . .

It enables you to flush the **entire producing zone** with concentrated high pressure circulation, and to completely remove all sand from the well **on just one trip into the hole.** Simply setting the spear and expanding the packers permits fluid under high pressure to be concentrated between the packers and out into the formation. Any pressure required to break circulaton and establish flow around the packers can be applied. Moving the tool up the liner in easy stages, the washing operation can be continued for as long as necessary to thoroughly clean out and remove **all** clogging material.

Bowen Liner Washers are available on an economical rental basis from your Bowen Service Store. All sizes are fully efficient on all weights of casing within any given size.



BOWEN FISHING TOOL CO.
SANTA FE SPRINGS, CALIFORNIA
VENTURA · BAKERSFIELD · AVENAL · SANTA MARIA
CASPER, WYOMING

San Joaquin Valley

Tide Water Discovers East Strand Field

Tide Water Assoc. Oil Co. is credited with the discovery East Strand, a new oil field slightly more than a mile east of the original Strand field in Kern county.

The discovery well, KCL No. 56-8, is located 1650 ft. north and 330 ft. east of the south quarter corner of sec. 8, 30s-26e. No prediction has been made concerning the size of the accumulation, but in view of the fact that the original Strand field proved small in extent plus the fact that the new field is flanked on all sides by prior deep tests in no case more than two miles removed, it is a fair assumption that the area will not be great.

Production in this new field is from the Stevens zone which was entered at 8132 ft. and carried to bottom at 8207 ft. With 7 in. casing cemented at 8100 ft the discovery well was completed barefoot flowing 1721 bbls. of clean 33.8 gravity oil and 1,250,000 cu. ft. of gas through a 1-in. bean under 850 lbs. tubing pressure and 1100 lbs. casing pressure. The well is now beaned back to a 15 bbl. per hour flow.

The original area, which must now be referred to as the West Strand field in view of this discovery, was discovered by joint operations between Tide Water Assoc. and Continental Oil Co. on sec. 7, 30s-26e in 1939. Now consisting of some 200 proved acres upon which are 14 wells, the field produces from three distinct zones in about 114 ft. of Stevens sand in the Miocene age. Depths vary from 8320 to 8750 ft. with deep exploration having carried to 14,051 ft. to prove the Vedder zone barren in this valley section. These general specifications are believed by many to be a fairly accurate forecast of the potentialities of the new East Strand field.

Honolulu Works Rincon Permit

Honolulu Oil Corp. is working on the pier over the Whitten Permits in the Tideland Rincon field. Employing common surface casing with No.'s 56-1, 2 & 3 the company is milling out to start No. 56-4 and has applied for permission to put down a fifth well.

No. 56-3 was partially converted from a lower Miley one to an upper Miley zone producer before the new well was started. The No. 3 hole was plugged from the bottom at 2985 ft. to 2653 ft. and gun perforated in the interval 2590-2625 ft. where a 3 hour formation test flowed 31 gravity clean oil under 500 lbs. pressure at a 790 bbl. rate. Now shut in just above the zone the well will be lined with prepacked gravel screen and recompleted upon the termination of new drilling.

Mt. View Wildcat Cores Oily Sands

Di Giorgio Fruit Corp.'s well in the northeast corner of sec. 12, 31s-29e, off the southeast tip of the Mountain View field, is coring oil stained sands at 1775 ft. after finding the top of the sand phase at 1250 ft.

Texas Spuds Williams Try

The Texas Co. spudded Voight No. 54-6 near the center of discovery sec. 6, 28s-20e in the Williams field which Shell Oil Co. discovered some 5 miles west of the southerly tip of the North Belridge field The well, employing a portable rig, was last reported at grass root stages.

Shell's latest completion in the thus far privately produced field was No. 24-6 which bottomed at 2350 ft. to make 399 bbls. of clean 16.8 gravity oil thru a 22/64 in. bean under 455/755 lbs. The company is preparing to complete No. 33-6 which topped the first oil sand at 2130 ft. and found the 45-6 sand in the interval 2197 to 2280 ft.

Two To Start In Cymric Area

Two new wells are scheduled for the area south of the Belridge field in Kern county. The first, an R. S. Lytle project, will be put down approximately 330 ft. south and west of the northeast corner of sec. 20,

SAN JOAQUIN VALLEY WILDCATS

Area	Well	No.	Section	Depth	Status
	Fresno County				
Coalinga	The Texas Co.	83-18	18, 21-15	1921	Drilling
	Lytle, Robt. S., Opr., Lobre	43-24A	24, 19-15		Rig
Guijarral Hills	Standard Oil Co., Well	82-29F	29, 20-16	8225	Drilling
Nicholson	Shell-Standard, Henderson	66-22	27, 15-15	9392	Drilling
	Kern County				
Comanche Point	Miesse, R. S. Ham Johns	2	32, 12-18	785	Drilling
Cymric	R. S. Lytle, Well	1	20, 29-21		Location
	C. M. Morse, Well	1	13, 29-21		Location
Devils Den	Continental Oil Co., Mabry	3	26, 26-18	3750	Drilling
Dyer Creek	D. D. Dunlap, Dyer Creek	1	11, 26-27	940	Drilling
Edison	Republic Pet. Co., Portals	2	5, 30-29		Rigging up
Jasmine	Calif. Oil Co., Quinn	3	15, 25-27	2926	Testing
McFarland	T.W.A. Oil Co., Strine	35-15	15, 26-26	575	Drilling
McKittrick	MacVee Assoc., Well	1	33, 29-21	927	Drilling
	T.W.A. Oil Co., Sterling	1	28, 30-22	3000	Abandoned
Midway-SE.	The Texas Co., P.U.P.	2	33, 11-23	8207	Drilling
Mt. View	DiGiorgio Fruit Corp., Well	1	12, 31-29	1775	Drilling
Mt. Poso	Ring Oil Co., Glide	2	19, 26-28	2003	Abandoned
Reserve	Reserve O. & G. Co., Well	34-1	34, 11-19	580	Drilling
Round Mt.	Gen. Pet. Corp., Bishop	1	14, 28-28		Foundation
	Harp & Brown, Olcese	1	17, 28-29		Rig
	Iseminger Bros., Well	1	8, 30-26	331	Drilling
Strand	T.W.A.O. Co., KCL	56-8	2, 28-28	8207	Completed
	Madera County				
Mendota	The Texas Co., Gill	38-16	16, 13-16	702	Drilling
	San Luis Obispo County				
Midway, NW.	C.C.M.O. Co., Thomas	1	1, 31-21	5776	Drilling
	C.C.M.O. Co., Well	25-1	1, 32-22	3669	Drilling
	Tulare County				
Tulare Lake	Shell Oil Co., Inc., T.S.G.	21-28	28, 22-20		Rig

29s-21e. The second will be C. M. Morse's well some 300 ft. due south of the north quarter corner of sec. 13, 29s-21e. This well is adjacent to the good production which E. A. Parkford recently effected off the south tip of the South Belridge field and seeks comparable Tulare sands. Failing extension of this production the well will try the Etchegoin horizon.

Dunlap Coring Dyer Creek Try

D. D. Dunlap is coring his Dyer Creek wildcat No. 1, sec. 11, 26s-27e, at the 1900 ft. level. This well seeks Vedder production similar to that found by Shell Oil Co., Inc.'s Smith No. 56-X-11 only a few hundred feet to the northwest. The Shell well came in on the pump at 2361 ft. for an average 200 bbls. of 15 gravity oil cutting 15.0%. Top of the Vedder was cored at 2343 ft. Several other wells have been drilled in the area in attempts to duplicate the good sands but so far, owing to complex faulting, have encountered only spotty saturation or gray sands.

Two Work At Devils Den

Continental Oil Co.'s Devils Den area wildcat, Mabry No. 3 on sec. 26, 26s-18e, is working at 3750 ft. Core recovery here has been fragmentary and to date no showing have been reported.

In the shallow field area Hillview Oil Co. is cleaning out to try production in the old 945 ft H. C. Trigg No. 2 on sec. 11, 25s-18e. With 8⅝ in. casing cemented at 118 ft. the new operator plans to set 5 in. casing and cement thru perforations for a water shut off.

Standard Finishes North Dome Well

Standard Oil Co. completed No. 63-13P, sec. 13, 22s-17e in the Kettleman North Dome field, at plugged depth of 8725 ft. Finished on gas lift the well makes 1980 bbls. of oil, 250 bbls. of water and 1,000,000 cu. ft. of gas thru a 48/64 in. bean under 70/980 lbs. pressure.

Round Mt. Work Yet Progresses

Activity in the east side Round Mountain field is maintaining a moderate pace with five operators carrying on work.

Honolulu Oil Corp. on sec. 18, 28s-29e is preparing to pump No. 31 from plugged depth of 1962 ft., is coring at 1230 ft. on No. 56-X and has staked locations for No.'s 21 and 42.

Shell Oil Co., Inc., is rigging pump on Caldwell No. 23, sec. 7, 28s-29e, after bottoming in the Vedder at 1741 ft. and has poured foundation for No. 24 and staked No. 25 in the same section.

D. G. Vedder is ready to complete Bell No.'s 8 and 12 on section 12 of the township and is drilling No. 13 at 850 ft. New operations planned to start at once are Bishop Oil Co.'s Thomas No. A on sec. 12, 28s-28e and Trico Oil & Gas Co.'s Coffee No. 11 in sec. 8, 28s29e.

Wilshire Tests Jacalitos Well

Wilshire Oil Co. is running liner to try Temblor sands cored in the interval 3860-81 ft. in No. 47-26E on sec. 26, 21s-15e. The try is an outpost along the southwest flank of the production which Wilshire discovered in late 1941.

Joint Deep Test Drilling

The Shell-Standard Oil Co. deep wildcat test, Henderson No 66-22 on sec. 27, 15s-15e in the Nicholson area of Fresno county, is drilling in hard shale at 9392 ft. Some field observers believe that Cretaceous siltstone was entered near 7900 ft. but to date the operators have released no information concerning markers or findings.

Helm Operations Waiting Approval

Amerada Pet. Corp. is temporarily stalled on Helm field operations until additional projects are ok'd by the OPC. The last active well in the field was Truman No. F-34-36, sec. 36, 16s-17e, which finished at plugged depth of 8265 ft. and after gun perforating a solid string in the interval 8230-50 ft. came in flowing 622 bbls. of clean 29.7 gravity oil and 254,000 cu. ft. of gas through a 14/64 in. bean.

Individually controlled, this field was discovered by Amerada during 1941 and consists of a yet undetermined acreage with flat topography overlaying an apparently complex anticlinal structure. The field offers proved producing horizons in the Big Blue-Middle and Lower Miocene and Eocene.

BUDA POWER

GAS--GASOLINE--
DIESEL--BUTANE

•

SALES SERVICE

•

PRODUCTION EQUIPMENT COMPANY
651 East Gage Ave.
Los Angeles, California
ADams 5148

Caloil Testing Jasmine Wildcat

California Oil Co. is testing in an effort to produce the 2926 ft. Quinn No. 3 which R. S. Bolling ceased work on early this year. Located in sec. 15, 25s-27e the well is one of many which has sought production in the area since the Doyle Pet. Co. Quinn No. 1 pumped a little heavy oil and water in 1938. The current try, a direct offset, plugged off bottom gray sand to 2915 ft. after setting 7 in. casing at 2887 ft. and landed prepacked liner on the plug. A little 10 gravity oil along with mud was recovered before bailing dry. A little gas was noted during operations.

Reserve Starts So. Valley "Cat"

Reserve Oil & Gas Co.'s latest attempt to solve the production puzzle in the Grapevine area is under way near the north quarter corner of sec. 34, 11n-19w, northeast of previously discovered small production. The well, Reserve No. 34-1, is drilling near 1000 ft. under contract to Bell & Loffland. Many competent geologists agree that a substantial accumulation probably exists in the area and persistent efforts to define it may be richly rewarded.

Randan Reworks Lost Hills Well

Randan Pet. Co. Theta No. 1, sec. 3, 26s-20e, is preparing to set liner and test after squeezing the splice between 5½ in. at 1625 ft. and 1009 ft. of 6 in. cemented at 2446 ft.

Universal Cons. Oil Co. finished well No. 19-D, sec 30, 26s-21e, pumping good oil at a net 36 bbl. rate from plugged depth of 1480 ft. The company is preparing to spud No. 24-D 1710 ft. south and 440 ft. west of the northeast corner of the section.

Dougan Starts Poso Creek Well

C. L. Dougan is building rig to drill Atlantic Oil Co.-Sesnon No. 1 95 ft. south and 330 ft. west of the east quarter corner of sec. 17, 28s-27e at Poso Creek.

Standard Oil Co. which is carrying on a consistent program in the area finished Well No. 7-9 at 2840 ft. pumping 151 bbls. of 27.2 gravity oil and No. 8-8 at 2870 ft. for 41 bbls.

McKittrick Area "Cat" Underway

MacVee Associates Well No. 1, 330 ft. south and east of the center of sec. 33, 29s-21e, some two miles northwest of the McKittrick field, is under way and drilling at 1000 ft.

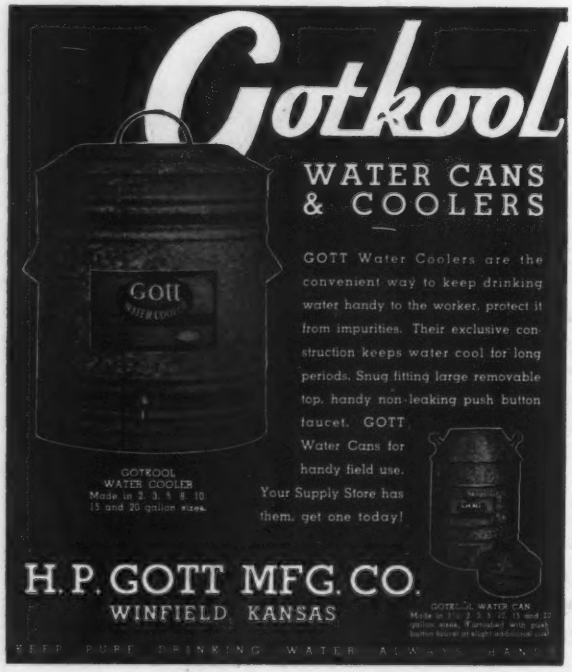
In the proved section of the field Tide Water Assoc. Oil Co. is cleaning out to work over Giant No. 16 on sec. 11, 30s-21e.

HELP WANTED

Well-known oil tool company desires to contact party capable of managing its Ventura agency commencing January 1, 1943. Remuneration or commission basis. Will provide good living and interesting occupation. Present representative retiring because of poor health. Persons replying should be well recommended as to personal habits, reliability, and general knowledge of production practices. Investment required to the extent of light truck and small shop tools. Box 28, c/o California Oil World, Los Angeles. 12/5b

FOR SALE—

No. 2500 Southwestern casing head plant. Complete unit 80 horsepower Bessemer compressor. J. Hokum Co., Phone HOllywood 3931.


Gotkool
WATER CANS
& COOLERS
GOTT Water Coolers are the convenient way to keep drinking water handy to the worker, protect it from impurities. Their exclusive construction keeps water cool for long periods. Snug fitting large removable top, handy non-leaking push button faucet. GOTT Water Cans for handy field use. Your Supply Store has them, get one today!
GOTT
GOTKOOL WATER COOLER
Made in 3, 5, 8, 10, 15 and 20 gallon sizes.
H. P. GOTT MFG. CO.
WINFIELD, KANSAS
KEEP PURE DRINKING WATER ALWAYS HAN

Just Say---

YES! You may send me the CALIFORNIA OIL WORLD for one year, for which I enclose $1.00.

For Foreign Countries, $2.00

Name .....

Address .....

City ..... State .....

Position ..... Company .....

Check branch engaged in Producing..... Refining..... Natural Gasoline..... Marketing..... Manufacturing.....

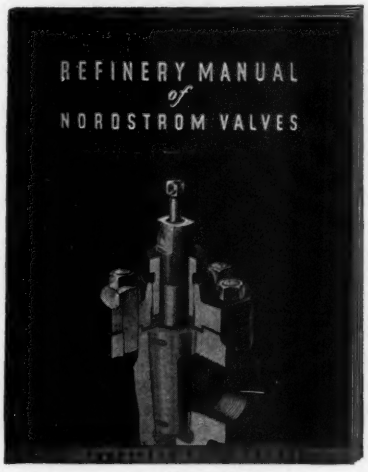
Subscriptions accepted only from persons actively connected with the oil industry.

California Oil World, 839 S. Broadway, Los Angeles

New Refinery Manual of Valves and Processes Published

A new refinery manual detailing the selection of specific valves for given applications, accompanied by recommendations regarding selection of metals or alloys and plug valve lubricants, has been compiled and published by Merco Nordstrom Valve Company.

The manual lists the many and varied processes of refining and includes a glossary of approximately two hundred refining terms and brief descriptions of many phases of the industry, to serve as a guide and compendium of terms.



Many refinery engineers have been uncertain as to what type of Nordstrom Valve to choose for a given service. The manual attempts to list the hundreds of services typical in a refinery and specifies the type or types of metal or alloys found most successful in refineries where similar questions have arisen. The recommendations are not intended as final or conclusive but to serve as a practical guide at a time when the manufacturer's field engineer is not immediately available.

Junior engineers and construction draftsmen will find the volume of special interest and usefulness not only as a reference and guide in valve planning but as an informative treatise on valve construction and as an education book to increase their knowledge of valves.

Approximately one hundred photographs of typical refinery valve installations showing the general hook-up of lubricated plug valves and close-up views are presented, for the purpose of bringing to the attention of engineers the established practices in refineries through the country.

An interesting blue print chart showing the flow of petroleum from the well through many processes and finally to the loading zone occupies a two-page spread.

In the forepart of the manual, clear detailed air-brush drawings revealing the cross sections of the numerous types of Nordstrom Valves are presented in color. These include the Hypreseal type, Multiport type and Merchrome Coated applications, with details of "Sealdport" lubrication and a description of its principle.

The manual is richly printed in multi-process colors, on heavy enameled paper, bound within a quadra-color cover.

In the lubricant section several new types of hard and soft lubricants are listed and the complete line of Nordco valve lubricants are described.

Contents in addition to the chapters above mentioned include: an abridged listing of all types of plug valves used in refineries, with sizes, pressures and method of operation, Transflo or tank switching valves, remote and dual control valves, extended stem valves, by-pass relief valves, fittings, pressure ratings, vacuum operation, meters and regulators.

Copies of this Refinery Manual are to be distributed to engineers actually employed in the refinery industry. Requests for copies should be addressed to Merco Nordstrom Valve Company, 400 Lexington Avenue, Pittsburgh, Penna. Please ask for Bulletin V-139.

New Line of A-C Combination Magnetic Starters Announced By General Electric

A new line of alternating-current combination magnetic starters for full-voltage starting of induction motors up to 7½ hp has been announced by the General Electric Company.

Available only in NEMA sizes 0 and 1 as yet, these starters consist of a fusible motor circuit switch and a magnetic starter incorporated in one compact unit to conserve space and installation time, to provide greater protection for equipment and operators, and to improve appearance. Also, to facilitate mounting groups of the starters close together, the operating handle is projected through the front rather than the side of the case.

The motor-circuit switch has silver-surfaced, snap-action contacts of the foller type which easily break stalled motor current. New Vystipe fuse clips hold the fuses securely in place by means of screw fasteners at each end, assuring good contact and preventing the fuses from being displaced if subjected to short-circuit conditions. Forms are also available with thermal circuit breakers in place of the fusible motor-circuit switch.

Bimetallic overload relays are adjustable for either hand of automatic reset and protect the motor from overheating caused by repeated overloads, sustained overloads, or too frequent starting. All terminals are clamptype, front-connected. The double-break contact tips are silver-inlaid and of the self-cleaning type.

The starters are enclosed in general purpose, cabinet-type, all welded steel cases. The flush-type doors of the cases close into deep L-shaped flanges, making a particularly tight joint between the case and the cover. An interlock prevents opening the door until the switch is OFF.

Emsco Issues New Derrick Bulletin

Emsco Derrick and Equipment Company have just issued a very complete bulletin No. 150 E, covering steel derricks and sub-structures.

This bulletin is available to interested parties by writing to Emsco Derrick and Equipment Co., 6701 South Alameda Street, Los Angeles.

Get MORE Service from your wire lines

THAT'S good common sense anytime—today it's a patriotic duty. Although the production of oil is vitally important in our war effort we've all got to face the fact that the Nation's steel is going first into war equipment and munitions. That is why it is so important to take every care and precaution that will extend the life of your wire lines to the utmost limit consistent with safety.

American Tiger Brand Wire Lines are manufactured to withstand long, hard and continuous duty. But if you want to get every ounce of service that's built into them *you* must do your part. Give these lines the care a good product deserves. Make it a point to see that the simple rules of wire line handling are consistently followed in the field and you'll be surprised how much better your Tiger Brand Lines will perform and how much longer they will last. Remember, every wire line that is allowed to wear out prematurely is an unnecessary loss to the nation.

COLUMBIA STEEL COMPANY
San Francisco
AMERICAN STEEL & WIRE COMPANY
Cleveland, Chicago and New York
United States Steel Export Company, New York

Send for this FREE book... it tells you how

Here are 48 pages of valuable facts on wire line care which if followed will improve performance and definitely extend useful life. The practical suggestions it offers are based on the experience of thousands of wire line users. A copy in the hands of your operating men will save money for you . . . will help conserve wire rope supplies for other vital national requirements.

USS UNITED STATES STEEL *Excellay Preformed*